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ABSTRACT

This project focused on both students and their teachers. Through the SLICK (Summer Learning in Colchester for Kids) component, children were afforded the opportunity to participate in several enrichment courses during the summer of 1987. Through the effective teaching component, teachers assisted in training their peers, and coached one another in applying effective teaching techniques. A graduate course in effective teaching was also offered to district teachers. The theoretical framework of the project was based on research findings in three areas: instructional skills, coaching skills, and supervision strategies. The first section of this report presents an overview of the project including descriptions of background information, grant development, objectives, participants, and funding. In section two, a description of the implementation of the project includes staff and student activities, project timeline, and specific course offerings in SLICK. An evaluation of the project comprises section three. The final section summarizes the project and discusses future implications. Detailed descriptions of the project components are appended, as well as the Effective Teaching Cooperative Handbook. (JD)

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FINAL REPORT ON GRANT NO. ER1-G-86-0109
TITLE VI EXCELLENCE IN EDUCATION PROGRAM

EFFECTIVE TEACHING COOPERATIVE

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Donna Jacob

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FINAL REPORT: GRANT NO. ER1-G-86-0109
PROJECT NO. 6-6207
I.D. NO. CFDA 84.171

U.S. Department of Education
GCS, Grants Operation Branch "C"
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Washington, D.C. 20202-3340

ATTN: Lee Hubert

RE: Final Report on Grant No. ER1-G-86-0109
Title VI Excellence in Education Program
Project Title: Effective Teaching Cooperative

FROM: Maryellen C. Ham, Ph.D., Interim Project Director
Donna Jacob, ETC Coordinator

OUTLINE OF REPORT

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PHASE I: PROJECT DEVELOPMENT

A. Background Information

The Colchester School District provides public education for about 2,475 children residing in the Town of Colchester and accepts about 80 students from Grand Isle, North Hero and South Hero on a tuition basis.

Colchester is located just north of Burlington, the largest city in Vermont. The advantages of several colleges and the University of Vermont are easily available as these institutes of higher learning are within a very short distance. Miles of frontage of Lake Champlain exist as the western boundary of Colchester. There are several marinas, a town-owned sandy beach, park with tennis and basketball courts, state fishing and boating access ramps, drive-in movies, a rollerskating rink, small amusement park, a conference center complex, and a nine-hole golf course open to the public.

The School District has five school buildings and groups its students in two primary grade buildings (grades K-3), one intermediate grade school (grades 3-5), one junior high school (grades 6-8), and one senior high school (grades 9-12). Colchester Junior High School was constructed in 1970 and Colchester High School was constructed in 1975. Additions to both the intermediate school building and primary school buildings were made in 1977. Kindergarten classrooms were added to our two primary units in 1987.

B. Grant Development

A small group of Colchester School District personnel including: the Assistant Superintendent, one elementary principal, the junior high school assistant principal and a high school teacher met to develop the Excellence in Education Program Grant. This group had been involved with the Effective Teaching Cooperative model, and sought new ways to increase learning time for students and to provide incentives to teachers. This group, therefore, agreed to title their grant proposal: Colchester Effective Teaching Cooperative. Frequently, the grant is referred to as the ETC Project.

In addition to the original planning group, a steering committee comprised of five teachers, two administrators and the Project Director was formed to oversee implementation of this grant. This committee planned the summer school program for students (SLICK) and refined the effective teaching cooperative (ETC) for staff. Committee members also created job descriptions, and planned/participated in dissemination activities.

C. Project Focus, Objectives, and Theoretical Framework

This project focused on both students and their teachers. Through the SLICK (Summer Learning in Colchester for Kids) component, children were afforded the opportunity to participate in several enrichment courses during the summer of 1987. These courses included: Hello to the World of Spanish, Becoming Yourself, A Musical Approach to Language, and Making the Grade. Through the effective teaching component, new incentives were offered to encourage Colchester's most accomplished teachers to assist in training their peers, and to coach one another in applying effective teaching techniques.

In conjunction with the summer program, a graduate course in effective teaching (ETC) was offered to District teachers. This course included the content of effective teaching skills, as well as guided practice using these skills through tutorials in the summer school program. A model of coaching was learned as the last component of the graduate course. Teachers who had prior training in effective teaching were recruited to be presenters and to co-teach the ETC graduate course. Presenters also participated in refresher sessions on effective instruction and coaching, and in a session on how to teach adults. SLICK teachers, presenters, the summer school directors, and District administrators all served as coaches. A coach observed the teacher practicing the new skill, recorded data, and then conferred with the teacher. Together they analyzed the lesson, and discussed the use of the new skill.

The specific objectives addressed through this Effective Teaching Cooperative grant included:

1. Providing incentives for teachers who had mastered the techniques of effective instruction, as well as opportunities to share these skills with other teachers.

2. Offering training and coaching opportunities to all teachers desiring to enhance their own effectiveness in working with both children and peers.

3. Adding a summer school component to the district, and providing students with additional learning time through a structured summer instructional program.

4. Creating awareness among parents and community members regarding the complexities of teaching, and the processes teachers undergo to refine their professional skills.

The theoretical framework of this Project included three bodies of research. The instructional skills taught to teachers were based upon Madeline Hunter's model of effective instruction. Coaching skills were taught based upon the research and practices recommended by Bruce Joyce, Marsha Weil, and Beverly Showers. Supervision strategies were discussed, modeled, and practiced in a clinical cycle as researched and advocated by Cogan, Goldhammer, and Krajewski. During the three years prior to the implementation of this Excellence Grant, the Colchester School District made a major commitment to improving the basic instructional techniques used by every classroom teacher. The following five generic skills were taught as fundamental to the improvement of instruction:

1. Select the correct objective at the correct level of difficulty.
2. Teach to the objective.
3. Keep the learner focused on the objective.
4. Monitor the progress of the learner and adjust instruction.
5. Use the principles of retention, reinforcement, motivation, and transfer.

Building directly on this District commitment, Project participants expanded and refined staff skills in instruction, coaching, and supervision. Throughout this Project, specific techniques in the coaching process were modeled and practiced in both the workshops/courses offered during the school year and those offered in the summer school component. Steps in this coaching process included:

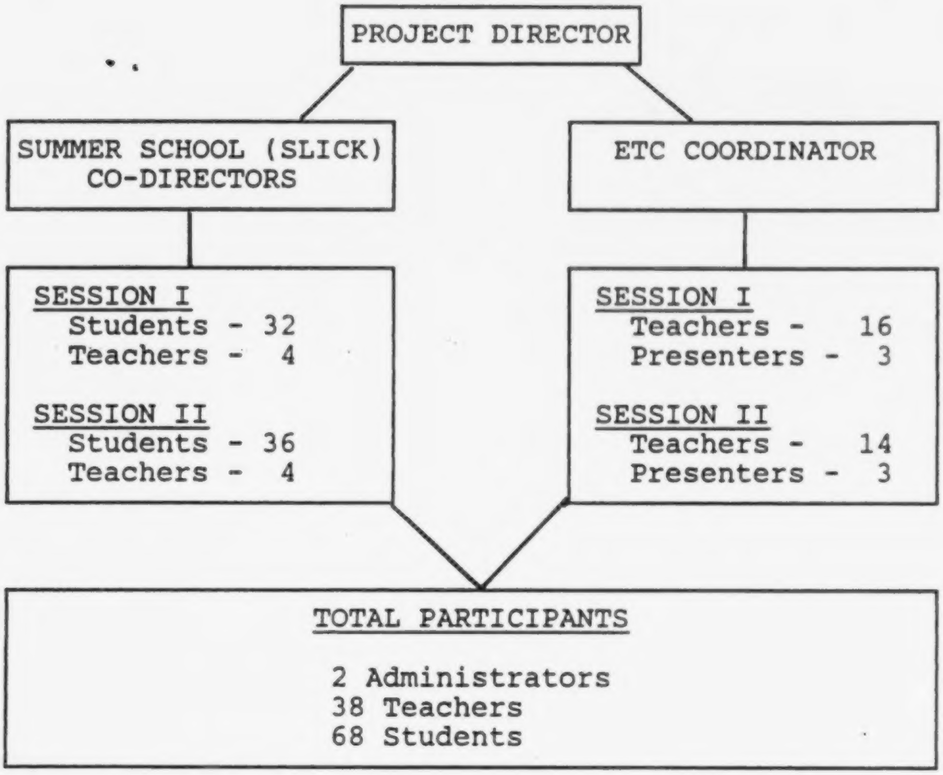
1. Pre-conference (agreement on expectations)
2. Observation and data collection
3. Analysis of data
4. Post-conference with teacher
5. Written conference summary

D. Participants and Funding

Although approximately 80% of all Colchester School District staff participated in direct training in effective teaching practices, this Excellence Grant was used to primarily fund the SLICK summer school program and the summer ETC component for teachers. Other funding sources included: District professional development resources; Chapter II Block Grant money; tuition revenue, and student scholarship funds donated by local businesses and the Colchester Lions Club. The following graphic summary (on the next page) illustrates the number of participants involved in the summer components of this Project.

SUMMARY OF PARTICIPANTS IN ETC EXCELLENCE PROJECT

SUMMER, 1987



PHASE II: PROJECT IMPLEMENTATION

A. Staff and Student Activities

During the implementation phase of this Project, staff and student activities were equally important and consistently integrated. The incentives offered to teachers included: assuming the role of a presenter or coach modeling effective teaching practices; designing a course and participating as a SLICK summer school instructor; and/or serving as a school-based facilitator sharing ETC practices with peers throughout the year. For students, additional learning time was provided through the SLICK summer school program, as well as enhanced teaching throughout the school year by a number of newly trained and/or retrained staff.

Teachers who had not completed training in the ETC instructional skills were identified. These teachers were given information regarding the course being offered in the summer of 1986 (Appendix 11: Summer ETC Course). This course was offered with either graduate or recertification credit. Participants identified their interests and needs. The ETC teachers, also called presenters, were then surveyed to determine the appropriate SLICK course in which to do the tutorial. Based upon their own interests and experiences, presenters were assigned to do a tutorial in a specific SLICK course with a peer (Appendix 16: ETC Course/Tutorial).

During the 1986-1987 school year, the ETC instructional program was also offered in several other ways: peer tutoring, independent study, and/or professional days. In the peer tutoring format, a teacher who had already completed the ETC training reviewed the content with a peer providing explanation/discussion, and coaching the teacher to implement effective teaching skills in the classroom. The Project Director and/or ETC coordinator also did classroom observations and coached the teacher (Appendix 22: Peer Tutoring Program). In the independent study format, the Assistant Superintendent met with the individual teacher to review effective teaching skills, and observed/coached the teacher to implement these instructional skills in his/her classroom. In the workshop format, teachers were released from their classroom responsibilities one day a week, every other week, to participate in a five day program. Teachers convened in a location within the District. Fellow teachers, along with the Project Director and ETC Coordinator, taught the content of the instructional skills program. The building principals, Project Director, and ETC Presenters observed/coached the teachers in their efforts to implement effective teaching skills in their classrooms.

B. Timeline for Summer School Planning/Implementation

Although the SLICK summer school Co-Directors were recruited and hired in the fall of 1986, regularly scheduled planning meetings for summer school courses, teachers, and students began in January, 1987. The following timeline traces these planning activities.

January 8: General meeting open to all interested teachers.

January 9-26: Directors recruit staff members and assist with course proposal writing.

January 26: Summer School Directors meet with Assistant Superintendent to review/select proposals and teachers. Five courses initially approved.

January 30: ETC course for teachers advertised with excellent response, and some teachers recruited to be presenters (Appendix 11). Four ETC training sessions for presenters scheduled and conducted by ETC Coordinator.

February 18: Summer School Directors meet with Session I teachers to plan programs, schedules, and recruit students.

March 5: Assistant Superintendent and Summer School Directors meet with town Recreation Director to coordinate summer activities (Appendix 20).

March 16: Summer School Directors meet with Session II teachers to plan programs and schedules.

March 19: Publicity regarding SLICK appears in Colchester Chronicle and Free Press. Brochures distributed to parents and students (Appendix 17 and 18).

April 2: Summer School Directors and Assistant Superintendent plan space requirements, review registration format, and discuss budget.

April 27: ETC Coordinator plans coaching workshop and accepts referral for same.

May 4: Planning meeting for Summer School Directors and teachers.

May 5: Professional day for ETC presenters facilitated by Project Director and ETC Coordinator.

May 28:	Scholarships solicited from local PTO groups, teachers' association, and Lions Club. All eleven families requesting assistance received scholarship money.
June 3:	Summer School Directors meet with all SLICK teachers and make decisions regarding the need to cancel undersubscribed courses.
June 15:	Confirming letters sent to all parents whose children enrolled in SLICK.
June 17:	Planning day for ETC Coordinator and presenters (Appendix 16).
June 22:	SLICK Session I begins at Colchester Junior High School with total of 32 children.
June 29:	ETC Session I begins with 15 teachers and 3 presenters.
July 10:	Last day of SLICK Session I. Open house held for parents. Last day of ETC Session I.
July 13:	SLICK Session II begins at Colchester High School with a total of 36 children. Project Director shares a progress report on SLICK with School Board members.
July 20:	ETC Session II begins with 14 teachers and 3 presenters.
July 31:	SLICK II and ETC II sessions end. Open house for parents. Surveys distributed to staff and parents.
August 3:	Assistant Superintendent meets with ETC Coordinator to discuss concept of school-based facilitators. Also meets with Summer School Directors to discuss feedback on SLICK, and desire to continue a summer school program.
August 5:	Assistant Superintendent meets with all District administrators about "facilitator plan" and training for these roles. Administrators commit to concept.
August 7:	Project Director interviewed by editor of Colchester Chronicle regarding SLICK.
September:	Fall issue of District newsletter features articles on both SLICK and ETC (Appendix 19).

C. Specific Course Offerings in SLICK-1987

The specific courses offered to Colchester children through the SLICK summer school program are listed below. A brief course description, objectives, and activities are included for each course.

COURSE TITLE: A MUSICAL APPROACH TO LANGUAGE

Description:

1. To improve basic skills in language, memorization, gross/fine motor coordination, oral motor ability and sequencing.
2. To improve language concepts (i.e. vocabulary, classification skills) and auditory processing skills (i.e. following directions, comprehension, auditory memory), as well as pragmatic skills.
3. To improve pragmatic skills (social skills, eye contact, attention, etc.)
4. To increase awareness of rhythm, pitch and beat.

Students will be involved in activities designed to improve basic language skills and motor skills in a combination of music/language therapy.

Course Outline:

Prior to the start of the session, students will have diagnostic testing, both formal and informal, in: 1) language and 2) fine/gross motor skills. Individual objectives will be established for each child. Activities will be selected to meet the needs of the children involved in the program. Examples of activities to be included are:

1. short term memory skills for sequences and patterns
2. singing songs
3. language experience activities relating to music
4. improvisational techniques in rhythm and voice
5. dancing and playing simple instruments
6. role playing and drama activities
7. vocabulary enrichment

COURSE TITLE: HOLA AL MUNDO ESPANOL (HELLO TO THE WORLD OF SPANISH)

Description:

Are you interested in learning Spanish, preparing and eating Spanish food and drink, singing Spanish songs, and doing some traditional art projects (the pinata, God's eyes)? Then this class is for you!

At the end of three weeks, you will be able to say in Spanish, the numbers from 1-20, colors, food items, pieces of clothing, simple greetings, easy conversational lines, and you'll even have your very own own Spanish name!

Course Outline:

Daily classes will be divided into two parts, followed by snack/break. The first part will be presentation and practice of vocabulary and the second part will be art/music related.

Items to cover include:

1. Spanish names
2. greetings & partings
3. simple conversational lines
4. colors
5. numbers
6. articles of clothing
7. cultural activities
    a. cooking
    b. pinata
    c. God's eyes
    d. bark painting
    e. class banner with spanish design

COURSE TITLE: MAKE THE GRADE

Description:

A study skills class in which eight incoming freshmen were enrolled. The students learned various techniques such as stress reduction to help them be better students. High school administrators, a guidance counselor and the high school librarian met with the class to help make their transition at the high school easier. Each student met with Mary Ann Barnes, the teacher of the course, to set individual goals for his/her freshman year. Students continued to meet with Ms. Barnes once a month throughout their freshman year to check the progress of their goals.

COURSE TITLE: BECOMING YOURSELF

Description:

Becoming Yourself will be a course that focuses on three aspects of health and fitness: nutritional health, physical health and emotional health. The major objective of the course will be for participants to learn nutritional information, physical conditioning skills, and self-help strategies that will enable them to be the person they want to be...the person they know is underneath some bad habits and attitudes.

Course Outline:

1) One hour daily aerobic conditioning and stretching exercises. (Aerobic exercise will consist of fast walking, jogging or aerobic exercise to music.) Students will learn

to monitor their heart rate to maintain their "training zone."

2) One hour daily classes in the fundamentals of good nutrition and exercise. Students will learn to evaluate their own food intake. They will set a personal goal regarding nutrition that can be realized in three weeks.
3) One hour daily emotional health -students will keep a daily journal of their feeling and progress. Instructor could include field trip to local health club; possible guest speaker from nutritional field (Karen Sanborn, M.S.W.); possible guest speaker on how to reduce stress and learn relaxation techniques (Rebecca Hilly).

PHASE III: ASSESSMENT

A. Methodology and Analysis

Throughout this Project, a variety of data sources was used to record and monitor progress. These sources included: written summaries of all planning meetings; pre and post surveys completed by the ETC presenters and SLICK teachers; evaluation surveys completed by the parents of children enrolled in SLICK; journals maintained by both of the SLICK Co-Directors; and evaluation reports completed by all Project staff members. (Copies of this collected data and the forms used are included in the Appendices to this Report.)

One of the major objectives of this Project was to provide incentives both to classroom teachers skilled in effective teaching strategies, and to those desiring additional training and/or experience using ETC skills. Therefore, much of the qualitative data generated in the Project focused on identifying what these incentives were and how they were perceived. The following two lists detail these incentives.

INCENTIVES FOR PRESENTERS IN ETC

Why Did Teachers Agree To Be Presenters?

Six Colchester teachers worked with the ETC Director as Presenters. Each was responsible for planning and presenting two or three pieces of content in the course. They planned together and got feedback on their plans and actual presentations.

Before the ETC course started, Presenters were also surveyed about their reasons for wanting to be Presenters. Most cited more than one factor as noted below:

-chance to earn some money (3)
-wanted a new teaching experience; teaching adults (3)
-personal invitation of ETC Coordinator (3)
-ETC is good "stuff" and I want to help others learn it (2)
-chance to review and refine my use of ETC skills (2)
-develop my presentation skills (2)

What Reservations Did Presenters Have About Their Roles?

-don't like to hold myself up as an expert (4)
-wasn't sure I know the skills well enough (4)
-planning time (3)
-presenting to adults (1)
-not sure what I was getting into (1)
-conflict with vacation, family obligations, courses (1)

After ETC ended, presenters were asked their reactions to the experience:

What Did Presenters Like About Being An ETC Presenter?

-working with adult learners; productivity with peers (5)
-expanded mastery of ETC content (3)
-rejuvenated/strengthened own teaching skills (2)
-learned new insights from colleagues; got support, enjoyed collegial relationship with other Presenters (2)
-got to know other District teachers (2)
-close working relationship with administration (2)
-relaxed pace; good resources (1)
-professional challenge; personal growth (1)

INCENTIVES FOR TEACHERS TAKING ETC

Why Did Teachers Choose to Take This Effective Teaching Course?

Participants were initially asked why they chose to take this course. Most noted several reasons, some listed them in priority. The following is a summary of these responses with the number of teachers stating the reason noted in parentheses.

-graduate credit available (9)
-time of year (9)
-I'd rather do the summer course than use release time (8)
-it's a practical course I can really use (7)
-convenient location (7)
-since I'll probably have to do it sometime, I'm getting it out of the way (6)
-convenient dates (5)
-recertification credit (4)
-it's free (4)
-heard it was a good course (2)
-so I could teach in the SLICK program (1)
-to help my student teacher (2)
-previous experience with content was good (2)

In course evaluations, six teachers specifically noted that they began the course with negative feelings, but their feelings changed during the course. Participants cited course content, modes of presentation, sharing with peers, coached practice, and general feelings of professionalism as positive aspects of the course.

Participants and Presenters noted the positive feeling tone created in both sessions of the course. This course made them feel confident about teaching both children and adults, proud of their peers, and excited about being a part of this District.

PARENT/STUDENT INCENTIVES

How Were Parent and Student Perceptions Assessed?

The SLICK summer school program was the component in this Project which directly involved students and their parents. At the end of both Session I and Session II, the SLICK Program Directors elicited verbal feedback from students and asked parents to complete a written evaluation. Student response was overwhelmingly positive with several requests for a continuation of the Spanish course next summer and for "more fun courses to learn about." The following summary details results of the parent evaluation survey, and their cumulative list of suggested summer school course offerings.

RESULTS OF PARENT EVALUATIONS
SLICK-1987

Choice of Courses Offered

4 = Very good
3 = Limited
2 = Good

Price ($50)

8 = Fair
2 = Good
1 = Excellent
1 = A bit steep

Time of Day (8:00 - 11:00 a.m.)

3 = Good
3 = Poor
2 = Great

Length of Day (3 hours)

4 = Very good
4 = O.K.
2 = Too long
2 = Too short

Location

5 = Very Good
5 = Good

Weeks Offered (Session I...June 22 - July 10)
(Session II...July 13 - July 31)

9 = Very good
2 = Conflicted with sport camps
2 = Too close to end of school

Transportation

6 = O.K. because of car pool
4 = No problem
2 = Problem for working parents

Information (Publicity)

4 = Good
2 = Very Good
2 = More feedback needed

PARENT SUGGESTIONS FOR FUTURE SLICK COURSES

Advanced Foreign Language
Arts & Crafts
Astronomy
Computers
Current Events/Social Issues
Fine Arts
Interpersonal Relationship Skills
Introductory Foreign Language
Math Review
Musical Approach to Language
Musical Instruments
Nature
Physical Fitness
Puppetry
Reading Club
Science Experiments
Study Skills
Survival Skills
Woodworking

B. Participants

This Project involved a total of 38 teachers, 68 students, and 2 administrators, in addition to the Assistant Superintendent who directed the Project. This group represented all segments of the regular school staff (K-12) as well as special education, Chapter I employees, and teachers in specialist positions. The following list outlines the staff participants by name, district responsibility, and role in this Project.

NAME	DISTRICT POSITION	PROJECT ROLE
Baldwin, Patricia	Grade 2 (UMS)	ETC Student
Bass, Paula	English (CJHS)	SLICK Co-Director
Benjamin, Cheryl	Special Ed. (PPS)	ETC Student
Bissonette, Dawn	Grade 3 (MBS)	ETC Student
Boyea, Cynthia	Grade 3 (MBS)	ETC Student

Bradley, Ann	Special Ed. (CJHS)	ETC Student
Bristol, Brenda	Grade 2 (PPS)	SLICK Co-Director
Clymer, Marie	Art (CHS)	ETC Student
Desautels, Sally	Primary Aide (PPS)	ETC Student
Devino, John	Math (CHS)	ETC Student
Dzewaltowski, Julie	Speech/Language (MBS)	SLICK Teacher ETC Student
Faller, Kurt	Grade 5 (MBS)	ETC Student
Finnegan, Joanne	Math (CHS)	ETC Student
FitzGerald, Teresa	Math (CHS)	ETC Student
Fleri, Michelle	Special Ed. (UMS)	ETC Student
Fortune, Allyson	Music (PPS)	ETC Student
Gordon, John	Opptnty. Rm. (CJHS)	ETC Student
Irvine, Virginia	Special Ed. (CJHS)	SLICK Teacher
Jacob, Donna	Vice-Principal (JHS)	ETC Coordinator
Joppe-Mercure, Ann	Art (UMS/PPS)	ETC Student
Kadish, Mary Ann	Grade 1 (PPS)	ETC Student
Leach, Kathryn	Sub. Teacher (PPS)	ETC Student
Levesque, Donna	Science (CHS) ETC	Student
Maneely, Judith	Chapter I (MBS)	ETC Student
Matthews, Ronald	Math (CHS)	ETC Student
Mayville, Phyllis	Grade 1 (UMS)	ETC Presenter
McClintock, William	Math (CHS)	ETC Student
Miller, Allegra	Music (MBS)	SLICK Teacher ETC Student
Moore, Violet	Business (CHS)	ETC Student
Moss, Deborah	Computer Aide (CHS)	ETC Student
Patterson, Susan	English (CHS)	ETC Presenter
Perrotte, Kenneth	Social Studies (CHS)	ETC Presenter
Romond, William	Computer (CHS)	ETC Student
Saddlemire, David	Science (CHS)	ETC Student
Schouten, Lynn	Grade 3 (PPS)	ETC Student
Silverman, Mary	Special Ed. (PPS)	ETC Presenter
Stevens, Nancy	Kindergarten (PPS)	ETC Student
Tefft, Kenneth	Ind. Arts (CJHS)	ETC Presenter
Traquair, Robert	Ind. Arts (CHS)	ETC Student
Vaughn, Carol	Grade 1 (UMS)	ETC Student
Waldron, Donna	Foreign Lang. (CJHS)	SLICK Teacher

Key to Participant's School

CHS = Colchester High School
CJHS = Colchester Junior High School
MBS = Malletts Bay School
UMS = Union Memorial School
PPS = Porters Point School

The following list outlines by name, school, and grade level the individual students who participated in the SLICK summer school component of this Project.

COURSE TITLE: A MUSICAL APPROACH TO LANGUAGE

NAME	GRADE
Arsenault, Robin	EEE
Bailey, Melinda	K
Barber, Bill	1
Desautels, Amy	4
Esden, Curtis	1
Giroux, Amber	EEE
Irish, Erica	K
Jewell, Evan	1
Lascelles, Michael	2
Lavigne, Christine	4
Lawrence, Mark	2
Lawrence, Ryan	4
L'Heureux, Catherine	1
L'Heureux, Elizabeth	3
Raymond, Jamie	4
Reno, Nickolas	K
Rousseau, Audrey	1
Smith, Johnathan D	3
Stafford, Laurie Anne	K
Tuttle, Brie	1
Wheeler, Andrea	4

COURSE TITLE: HOLA AL MUNDO ESPANOL (Hello to the World of Spanish)

NAME	GRADE
Benson, Sean	3
Black, Amy	4
Boyea, Justin	4
Bradley, Joe	4
Fontaine, Buffy	3
Fontaine, Marc	5
Hayes, Melinda	3
Hulburd, Julie	3
Kadish, Christopher	4
Kadish, Kevin	4
Kadish, Kyle	2
Kadish, Maureen	1
Kadish, Michael	2
Lawrence, Marc	2
Lawrence, Ryan	4
Mackie, Shawn	5
Morgan, Amber	4
Moses, Megan	3
Morrisette, Erin	3
Senesac, Joel	2
Verhelst, Jennifer	4
Whalen, Katy	3

COURSE TITLE: MAKE THE GRADE

NAME	GRADE
Bossick, Brandon	8
Hall, David	8
Houghton, Eric	8
Landry, Eric	8
Moses, Megan	8
Rivers, Jennifer	8
Sofferman, Brooke	8
Verdon, Claudine	8
White, Marc	8
Wible, Gretchen	8

COURSE TITLE: BECOMING YOURSELF

NAME	GRADE
Arnold, Terri	8
Bean, Heather	7
Brown, Christine	7
Coon, Katrina	6
Corbosiero, Michelle	6
Goulette, Angela	7
Kimball, Hillary	6
Morin, Katie	6
Patterson, Erin	6
Raymond, Katie	8

PHASE IV: SUMMARY AND FUTURE IMPLICATIONS

A. Summary

One basic assumption in this Project was that teachers must use instructional time efficiently and effectively, since such time is so limited in today's mushrooming curriculum expectations. Several research studies completed during the past decade have identified specific instructional skills related to high student achievement. For approximately three years prior to receiving this Excellence Grant, Colchester School District administrators and some teachers focused staff development efforts on teaching and consistently reinforcing the following five generic skills:

1. Select correct objective at appropriate level of difficulty.
2. Teach to the objective.
3. Keep learner focused on the objective.
4. Monitor learner's progress; adjust instruction.
5. Apply principles of retention, reinforcement, motivation, and transfer.

This Project enabled School District staff to explore new incentives designed: to encourage additional teachers to learn/apply the principles of effective teaching; to create leadership opportunities for some teachers to work with their peers; to involve staff members in coaching and mentoring relationships; and to create a school setting where these models of content and process could be tested during the summer. In addition to providing a laboratory for educational research, the SLICK summer school component also enabled Colchester students to enrich and increase their own learning opportunities.

Assessment data revealed a high level of enthusiasm for this Project, its process, and its outcomes. In addition to the consistently favorable comments reported by teachers, administrators, and parents, the following products now exist in the Colchester School District as a result of this Project:

- ETC Handbook
- Defined Peer Tutoring Model
- Defined Process for Coaching
- Library of Video Tapes on Effective Teaching
- Two Sets of Research Based Audio Tapes

With the exception of the tapes, copies of each of these products are included in the Appendix to this Report. All of these products continue to be used on a regular basis. In addition, the eight school-based facilitators frequently interact with staff members to reinforce the sequence of effective teaching skills originally introduced.

B. Future Implications

Although this Project ended only a few months ago, its future impact in this District is already evident. In February, 1988 for example, the Colchester Board of Education allocated funds to continue the SLICK summer school program. A SLICK-88 Project Director has been hired, and a Summer School Advisory Committee consisting of teachers, parents, the Town Recreation Director, and the Assistant Superintendent has been formed.

Although a formal graduate course in effective teaching skills will not be offered this summer, the Colchester District will sponsor a series of workshops on coaching strategies and peer supervision practices during the 1988-89 school year. (A recent survey of all staff members indicated nine teachers would be interested in a graduate course sometime in the future, and a similar survey will be conducted during 1988-89.) The ETC School-Based Facilitator roles initiated with Project funds will be expanded next year using District monies. During the Project, this concept was singularly attached to staff members who were taught effective instructional skills according to the Hunter model. Beginning next year, the District's intent is to expand upon this sound framework by exposing teachers and administrators to a much broader spectrum of developmentally appropriate approaches to teaching, learning, and supervising. In this context, the Project's original facilitator roles may be more globally defined as School-Based Staff Developers. During the next month, members of the District's administrative team will discuss this concept, and clearly define these new teacher leadership roles.

Based upon our experiences in the Colchester School District, the original objectives and the implementation strategies presented in this Project are ripe for replication in many school districts. As with all successful change processes in public schools, strong leadership, administrative support and broad representation from all role groups are crucial factors. This Project is also an excellent example of the significant impact which a small amount of federal seed money can make in a single school district. Beyond the initial outside funding, the District can now incorporate its own refinements in designing a plan for the Project's sustained impact. Potential replicators might wish to investigate the following questions regarding this Project before adopting its goals as written:

1. Would joint public school/university collaboration enhance Project outcomes?
2. Is exposure and training of Project participants in more than one model of effective teaching feasible?

3. In addition to surveys and questionnaires, what are some other methods of quantitative and qualitative data collection appropriate to this Project?

4. What is the relationship between models of effective teaching, teaching/learning styles, and stages of adult cognitive development?

5. What is the relationship between teacher incentives and teacher developmental supports/challenges?

The current Project Director and others involved in extending the efforts initiated through this grant, welcome comments regarding this Report as well as the opportunity to dialogue with other educators involved in creating similar staff development opportunities for teachers.

APPENDIX

APPENDIX 1 - EFFECTIVE TEACHING COOPERATIVE

APPENDIX 2 - ETC SUMMER PROGRAM

APPENDIX 3 - ETC PRESENTERS

APPENDIX 4 - ETC REFRESHER

APPENDIX 5 - ETC PRESENTER TRAINING

APPENDIX 6 - ETC HANDBOOK

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APPENDIX 12 - ETC PRESENTER SURVEY/PRE-SUMMER SURVEY

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APPENDIX 14 - ETC ATTITUTE SURVEY/PRE-COURSE SURVEY

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APPENDIX 16 - ETC COURSE/TUTORIAL

APPENDIX 17 - SLICK BROCHURE

APPENDIX 18 - PUBLICITY 1

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APPENDIX 20 - COUMMUNITY COORDINATION

APPENDIX 21 - SLICK PARENT OPINION SURVEY

APPENDIX 22 - PEER TUTORING PROGRAM

APPENDIX 1:
EFFECTIVE TEACHING COOPERATIVE

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University of Vermont CONTINUING EDUCATION
FACULTY APPROVAL FORM

EVENING Fall ☐ 19 ____ Spring ☐ 19 ____ SUMMER ☒ 19 87

APPLICANT INFORMATION

NAME: Donna H. Jacob
SOC. SEC. NO.: 105-40-9332
STREET ADDRESS: 12 Perrotta Place
CITY, STATE, ZIPCODE: Burlington, Vt. 05401
*HOME PHONE: 863-3124
*WORK PHONE: 655-1773 EXT.
EMPLOYER(TITLE): Colchester School District
DEPT. OR PROGRAM: Assistant Principal, CJHS
WORK ADDRESS: Malletts Bay Ave. Colchester Vt. 05466
HIGHEST DEGREE HELD, CONFERRED BY, DATE: C.A.S., University of Vermont, Administration & Planning, 10/84
MOST RECENT TEACHING EXPERIENCE, INSTITUTION, COURSE, DATES (FROM-TO): U.V.M., Effective Teaching Cooperative, Summer 1985

FALL and SPRING

CLASS DAY & TIME:
LAB DAY & TIME:
LOCATION PREFERENCE: COURSE LAB
DATE
SPECIAL NEEDS (AUDIO, VISUAL, ETC.):

SUMMER

SESSION	DATES FROM	DATES TO	DAY/TIME PREFERENCE(S)	LOCATION PREFERENCE(S)
2 2-WEEK	6/29	7/10	8 - 12:00	
☐ 3-WEEK	7/20	7/31	8 - 12:00	
☐ 4-WEEK				
☐ 5-WEEK				
☐ 6-WEEK				
☐ 8-WEEK				
☐ SPECIAL				

SPECIAL NEEDS (AUDIO, VISUAL, ETC.):

COURSE INFORMATION AND CATALOG COPY

COLLEGE ____ DEPT. ____ COURSE NO. ____ # CR. HRS. ____ ☐ ON ☒ OFF CAMPUS TOWN AND LOCATION: Colchester, Vt.

COURSE TITLE: Effective Teaching Cooperative

DESCRIPTION TO BE USED IN PUBLICIZING COURSE (ATTACH ADDITIONAL SHEET IF NECESSARY):

This course is designed for teachers, grades K-12 in any subject area. They will learn and implement the teaching behaviors presented as Madeline Hunter's Instructional Skills. As a result of this course, teachers will be able to analyze their teaching: identifying what instructional skills were implemented within the lesson and what their effect was on the learners.
Teachers will learn the instructional skills content and then practice them in tutorial sessions through the Colchester Summer School being run concurrently. They will be coached in their four tutorial sessions by Colchester teachers who have previously completed the ETC course.

PREREQUISITES:

Teachers employed in Colchester School District

ENROLLMENT LIMIT (PLEASE STATE): 15
IS PERMISSION OF INSTRUCTOR REQUIRED? ☒ NO ☐ YES
LAB FEE ☒ NO ☐ YES $
ACCOUNT NO.
☐ REGISTRAR WILL COLLECT FEE IN FALL/SPRING, SUMMER
☐ DEPARTMENT WILL COLLECT FEE IN SUMMER
* ABOVE PHONE NUMBER(S) WILL BE USED IN PUBLICITY

I VERIFY THAT THE ABOVE INFORMATION IS CORRECT.
I AGREE TO TEACH THIS COURSE. SIGNATURE X Donna H Jacob DATE: 2/6/87

APPROVED: (PLEASE SIGN AND DATE)

DEPARTMENT CHAIRPERSON ____ GRADUATE COLLEGE ____

COLLEGE DEAN ____ CONTINUING EDUCATION ____

DO NOT WRITE BELOW THIS LINE - INTERNAL USE ONLY

TOTAL GRANT CONTRACT

EFFECTIVE TEACHING COOPERATIVE
UNIVERSITY OF VERMONT
SUMMER, 1987

INSTRUCTOR: Donna Jacob

COURSE DESCRIPTION: This course is designed for teachers, grades K - 12 in any subject area. They will learn and implement the teaching behaviors presented as Madeline Hunter's Instructional Skills. As a result of this course teachers will be able to analyze their teaching; identifying what instructional skills were implemented within the lesson and what their effect was on the learners.

Teachers will learn the instructional skills content and then practice them in tutorial sessions through the Colchester Summer School being run concurrently with this course. They will be coached in their four tutorial sessions by Colchester teachers who have previously completed the ETC course.

SESSIONS: I. June 29-July 10, 1987;
II. July 20-July 31, 1987

GOAL: Each participant will identify teaching behaviors in their lessons that constituted efforts to implement the Effective Teaching: Instructional Skills.

OBJECTIVES:
Given a conference following each lesson in which the teacher/learner implements an instructional skill, the teacher will:

1. identify teaching behaviors that showed effort to implement the four components of teach to the objective (explanation, questions, activity and responding to the efforts of the learner in terms of the learning).

2. identify the critical elements that showed effort to promote positive transfer and avoid negative transfer.

3. identify the lesson's terminal objective, the task analysis for that terminal objective, and the objective(s) taught; and state whether or not the lesson's objective(s) were a correct selection based on pupil behavior.

4. identify the level of thinking complexity for the objective, for each of the questions asked by the teacher during the lesson and for the practice activity.

5. explain in terms of reinforcement theory the responses that he/she gave to the pupil's efforts.

6. tell the conference coach 1) when and how monitoring was executed in the lesson, 2) if any adjustments were necessary, 3) what the indicators were, and 4) what the adjustments were.

7. cite the variables of motivation that were used in the lesson and what the teacher said or did to implement them.

8. analyze the lesson for the following elements: set, active participation (in terms of covert and overt behavior), and closure.

9. cite to the conference coach the variables of retention that were used in the lesson and what the teacher said or did to implement them.

COURSE REQUIREMENTS:

1. Each course participant will be required to:
    - a. attend each session
    - b. read the course textbook, TEACHING MAKES A DIFFERENCE, by Carol Cummings, MASTERY TEACHING, by Madeline Hunter and view some tapes (Cummings, Hunter, local teachers.)
    - c. complete all activities scheduled within each session
    - d. practice the skills within the summer school
    - e. be observed by a coach for four practice cycles and participate in an instructional conference for each practice cycle and
    - f. write a summary of each conference identifying strengths and describing at least 2 things that would remain the same the next time the objective is taught and 2 things that would change and how.

GRADING:

1. Grading will be based on completion of the course requirements.
    - a. A grade of A will be given if all course requirements are met.
    - b. A grade of B will be given if the instructional conferences are documented but no written summary accompanies the documentation.
    - c. A grade of C or less will be given if the course requirements are not met.

APPENDIX 2:
ETC SUMMER PROGRAM

ETC SUMMER PROGRAM

OVERVIEW:

A graduate course is being offered to Colchester teachers who have not participated in the Effective Teaching Cooperative program (June 29th - July 10th and July 20th - July 31st).

Colchester teachers, who have participated in ETC, are being asked to participate as either a Presenter or a Coach.

PRESENTER:

Three to six Presenters will be chosen who will assist in teaching the graduate course. Presentation of information, modelling the instructional skills and monitoring guided practice will be required.
Time: 4 hours daily for ten days.

COACH:

A Coach will observe the graduate course participants practice the instructional skills in a summer school tutorial. Coaches will pre-conference, observe and record the lesson and conference with the teacher.
Time: 2 hours daily for four days.

WAGE:

Presenter: $600.00 per course
Coach: $100.00 per course

TRAINING:

1. Up to three days of release time will be provided so that Presenters and Coaches may review the content and/or coaching process of ETC.

APPLICATION PROCESS:

1. Submit a letter of intent to Donna Jacob (CJHS) by Friday, January 23, 1987.
2. Applications will be reviewed and interviews conducted by Donna Jacob and Mary Rutherford.

etcpresc.och

APPENDIX 3:
ETC Presenters

Session I:

*Kenneth Perrotte, Colchester High School, Social Studies Teacher and Department Chairperson
*Mary Silverman, Elementary Special Education Teacher
*Kenneth Tefft, Colchester Junior High School, Industrial Arts Teacher

Session II:

*Paula Bass, Colchester Junior High School, Language Arts Teacher
*Phyllis Mayville, Elementary Classroom Teacher
*Susan Patterson, Colchester High School, English Teacher

ETC Director: Donna Jacob, Assistant Principal, CJHS

APPENDIX 4: ETC REFRESHER

COLCHESTER SCHOOL DISTRICT

ADMINISTRATIVE OFFICES
P.O. BOX 27
COLCHESTER, VERMONT 05446
TEL. 802/658-4047

Richard T. Grimley
Superintendent

Roger C. Derby
Business Manager

Mary S. Rutherford
Assistant Superintendent

To:		
	Paula Bass	Ellen Rasys
	Brenda Bristol	Mary Silverman
	Phyllis Mayville	Cathy Simonson
	Susan Patterson	Ken Tefft
	Ken Perrotte	Donna Waldron

From: Mary Rutherford and Donna Jacob

Date: April 28, 1987

Subject: ETC Refresher - Schedule and Reminder

Tuesday, May 5th
Instructional Skills Review
Room 108 - Junior High School

Who? Everyone invited.
Be sure to read the summary of Instructional Skills (attached to the April 3rd memo) ahead of time. We will be checking understanding, reviewing, and giving some new information. Here's the schedule:

8:00 - Select the Correct Objective
9:00 - Teach to the Objective
10:00 - Break
10:15 - Monitor and Adjust
10:45 - Focus the Learner
11:30 - Lunch Break
12:00 - Motivation
12:30 - Transfer
1:15 - Retention -

Tuesday, May 12
Planning a Presentation
8:00 a.m. - 11:30 p.m.
Room 108 - Junior High School

Who? Paula Bass, Phyllis Mayville, Sue Patterson, Ken Perrotte, Mary Silverman, Ken Tefft

Donna Jacob will lead you in planning summer presentations.

Tuesday, May 12
Coaching Skills
12:00 - 3:00 p.m.
Room 108 - Junior High School

Who? Everyone--the morning people should stay on, the rest just come for the afternoon. Review of coaching.

APPENDIX 5:
ETC Presenter Training

OBJECTIVES:

1. know course objectives/organizational details
2. know interrelationship between ETC and SLICK
3. identify teacher perspective when a learner
4. identify critical attributes of effective presentations to adults
5. identify specific presentation assignments
6. begin lesson-planning

#1: Course Specifics

-handout course outline: dates, time, place, course objectives, expectations

-team concept

#2: SLICK/ETC

-define SLICK with timeline
-hand-out timeline
-describe coaching/tutoring

#3: Teacher Perspective as Learner

-think back to when you were first in the course; share feeling about:

content = brainstorm and summarize
being a student = brainstorm and summarize

#4: Teacher Perspective: Presentation

-think back to when you participated in workshop; share positive feelings/thoughts about presentations

-share negative feelings about presentations

-share from Mary

-identify/summarize critical attributes of effective presentations

-hand-out copies of resources

-use lesson line

-use video to present information

#5: Presenter Concerns

-turn to neighbor and share at least one concern/fear of presenting

-share group and problem-solve strategies to compenstate

#6: Assignments

-share outline of course sequence/describe rationale not in concrete/will respect/discuss suggestions

-meet in teams and choose presentations

a) content mastery/comfort/use
b) recommend that they look at videos

APPENDIX 7:
SCHOOL-BASED FACILITATORS

Porters Point School:	Brenda Bristol Mary Silverman Martin Waldron, Principal
Union Memorial School:	George Costello, Principal Phyllis Mayville Ellen Thompson
Colchester Junior High School:	Bernard FitzGerald, Principal Kenneth Tefft Patricia Werpy
Colchester High School:	Susan Patterson Kenneth Perrotte John Willard, Principal
Coordinator:	Donna Jacob

APPENDIX 8:
FACILITATOR JOB DESCRIPTION

COLCHESTER SCHOOL DISTRICT

JOB DESCRIPTION FOR SCHOOL-BASED FACILITATORS
EXCELLENCE IN EDUCATION PROJECT
GRANT #ERI-G-86-0109

QUALIFICATIONS:

1. Certified teacher with three or more years of teaching experience.
2. Knowledge of effective teaching practices and the ability to implement these.
3. Excellent human relations skills and the ability to foster positive growth and development among peers.

RESPONSIBILITIES:

1. Conduct an informal needs assessment within your school and share results.
2. Identify appropriate focus areas related to ETC practices, and discuss these with your building principal.
3. Share, publicize, and structure ways to develop your role.
4. Document the services you're offering and providing to your peers/school.
5. Develop a process for evaluating your role as a school-based facilitator.
6. Attend periodic meetings with the Coordinator of School-Based Facilitators and with the Project Director.
7. Participate in completing the evaluation of the Excellence in Education Grant.

TERMS OF EMPLOYMENT:

Position federally funded for school year 1987-88 with a stipend of $345 paid to each school-based facilitator.

EVALUATION: Performance will be evaluated by the Coordinator of School-Based Facilitators and the Project Director in consultation with the building principals.

****

I agree to work as a school-based facilitator as outlined in the above job description. I understand that this commitment is for school year 1987-88, and that I will be paid a stipend of $345 for my services.

School-Based Facilitator ____________________ Date ____________

Principal ____________________ Date ____________

Project Director ____________________ Date ____________

APPENDIX 9:
SLICK TEACHER SURVEY
PRE-SUMMER SURVEY

Under the terms of our grant, we are to collect information about what actually served as incentives/rewards to summer school teachers and what may have been disincentives.

Please answer this brief survey as soon as possible. You will be surveyed again after SLICK ends. Many thanks.

****

1. What factors persuaded you to teach in the summer program? If you have more than one reason, number them with #1 being your most important one.

____ pay
____ chance to teach something different (different age, subject)
____ chance to team teach
____ just enjoy teaching
____ wanted to work with teachers in ETC
____ released time to plan
____ summer schedule (time of day, length of session)
____ working with innovative program
____ being able to plan the whole thing with other teachers
____ pressure from administrators/other teachers
____ felt honored to be asked
____ other (please explain)

2. What were your major reservations about teaching in the summer program? If you have more than one, number them with #1 being most important.

____ planning time
____ deciding what to teach
____ feeling like I had to be a model of ETC skills
____ too little pay for too much work
____ not sure what I was getting into
____ too much time out of my summer
____ conflict with vacation, family obligations, graduate courses
____ wasn't sure about working with the ETC participants
____ other (please describe)

Name is optional: ____

Return to Mary Rutherford

APPENDIX 10:

SLICK TEACHER SURVEY
POST-SUMMER SURVEY
Session II

1. What did you like about teaching in the SLICK program this summer?

2. What problems/disadvantages did you experience with being a SLICK teacher?

3. Would you do it again? Why/why not?

4. Should the district offer a summer program in future years?

   If yes, what would make the program more attractive to teachers

   If yes, what would make the program more attractive to kids?

Return to Mary Rutherford

APPENDIX 11:
SUMMER ETC COURSE

COLCHESTER SCHOOL DISTRICT

ADMINISTRATIVE OFFICES
P.O. BOX 27
COLCHESTER, VERMONT 05446
TEL. 802/658-4047

Richard T. Grimley
Superintendent

Mary S. Rutherford
Assistant Superintendent

Roger C. Derby
Business Manager

To: Teachers and Instructional Aides

From: Mary Rutherford

Date: January 26, 1987

Subject: Summer ETC Course

If you still need or want to do ETC and summer workshops are a good option for you, here's what is planned:

What: Graduate Course - 3 UVM credits
(or take it as a workshop for recertification credit)

Where: Colchester Schools

When: First Session - June 29-July 10
Monday-Friday - 8-12 a.m.

or

Second Session - July 20-31
Monday-Friday - 8-12 a.m.

Who: Taught by Donna Jacob and other Colchester teachers.
Open to Colchester teachers and instructional aides.

Why: To offer an alternative to workshops during the school year.

I need to know how many of you are interested in the summer course--and which session you prefer. If demand is great enough, we will offer two sessions. Otherwise, we will only offer one session, probably the first.

Please return the slip below if you want to take the course.

****

Name ____

I want to take the ETC course this summer: (check all that apply)

_____ First Session (June 29-July 3)

_____ Second Session (July 20-31)

_____ Either Session is OK

_____ For graduate credit

_____ For recertification credit

Return to Mary Rutherford by Friday, January 30th.

APPENDIX 12:
ETC PRESENTER SURVEY
PRE-SUMMER SURVEY

Under the terms of our grant, we are to collect information about what actually served as incentives/rewards to ETC presenters and what may have been disincentives.

Please answer this brief survey as soon as possible. You will be surveyed again after ETC ends. Many thanks.

1. What factors persuaded you to be an ETC presenter this summer? If you have more than one reason, number them with #1 being most important.

____ personal invitation
____ chance to review and refine my use of ETC skills
____ chance to earn some money
____ wanted to develop my presentation skills
____ wanted a new teaching experience--teaching adults
____ like summer because it's less pressured
____ chance to work, plan with my colleagues
____ I think the ETC is good stuff and want to help others learn it
____ summer schedule (length of session, time of day)
____ chance to do coaching
____ other (please explain)

2. What were your major reservations about being an ETC presenter?

____ wasn't sure I know the skills well enough
____ don't like to hold myself up as an expert
____ planning time
____ presenting to adults
____ too little pay for too much work
____ conflict with vacation, family obligations, graduate courses
____ not sure what I was getting into
____ unsure of coaching skills
____ other (please explain)

Name is optional: ______________________________

Return to Mary Rutherford

APPENDIX 13:
ETC PRESENTER SURVEY
POST-SUMMER SURVEY

1. What did you like about being an ETC presenter this summer?

2. What problems/disadvantages did you experience with being a presenter?

3. Would you do it again? Why/why not?

4. Should the district be involving more teachers as presenters in ETC or other courses?

   If yes, what would make the experience more rewarding to teachers?

Name is Optional______________________________

Return to Mary Rutherford

APPENDIX 14:
EFFECTIVE TEACHING COOPERATIVE ATTITUDE SURVEY

PRE-COURSE SURVEY

Your answers to these questions will help us understand how you feel about the ETC as you begin the course. You will have a chance to respond to similar questions when the course is over. Thanks for your feedback.

****

1. Why did you decide to do ETC this summer? If you have more than one reason, number them with #1 being the most important reason.

____ time of year
____ graduate credit available
____ so I could teach in the summer program (SLICK)
____ since I have to do it sometime, I'm getting it out of the way
____ recertification credit
____ I'd rather do the summer course than use release time
____ heard it was a good course
____ convenient location
____ convenient dates
____ it's a practical course I can really use
____ it's free
____ other (please explain)

2. Here are some comments of teachers who have taken ETC in the past. What are your expectations at this point?

SA - Strongly Agree	D - Disagree
A - Agree	SD - Strongly Disagree

SA A D SD It's good that other Colchester teachers do a lot of the presenting.

SA A D SD It's good that we will practice the skills with real kids.

SA A D SD I'll learn a lot from discussing/sharing teaching ideas with other Colchester teachers.

SA A D SD What I learn in the ETC will confirm the value of my teaching techniques.

SA A D SD What I learn in the ETC will increase/expand my effective teaching techniques.

SA A D SD What I learn in ETC will be practical.

(other side, please)

SA A D SD What I learn in ETC will conflict with my teaching style.

SA A D SD The ETC will help me be more analytical about my teaching.

SA A D SD The ETC will give us a common vocabulary to use in talking about what we do in the classroom.

SA A D SD The ETC will help me talk with my supervisor about my teaching.

SA A D SD The ETC will help me know how to observe another teacher.

SA A D SD The ETC will show me ways to teach more material faster.

SA A D SD The ETC will show me ways to keep kids more involved.

SA A D SD The ETC will help me make better educational decisions.

SA A D SD The ETC will try to make us all teach alike.

SA A D SD The effective teaching material won't apply to my subject.

SA A D SD We will learn more by being in a mixed group--teachers from all subjects and grade levels.

Other Comments:

Name is optional: ______________________________

*****Return to Donna Jacob*****

APPENDIX 15:
EFFECTIVE TEACHING COOPERATIVE
ATTITUDE SURVEY
POST-COURSE SURVEY

1. Here are some comments of teachers who have taken ETC in the past. Now that you're done, how do you agree and disagree?

SA - Strongly Agree
A - Agree
D - Disagree
SD - Strongly Disagree

SA A D SD It's good that other Colchester teachers do a lot of the presenting.

SA A D SD It's good to practice the skills with real kids.

SA A D SD I learned a lot from discussing/sharing teaching ideas with other Colchester teachers.

SA A D SD What I learned in the ETC confirmed the value of my teaching techniques.

SA A D SD What I learned in the ETC has increased/expanded my effective teaching techniques.

SA A D SD What I learned in ETC will be practical.

SA A D SD What I learned in ETC conflicts with my teaching style.

SA A D SD The ETC helped me be more analytical about my teaching.

SA A D SD The ETC gave us a common vocabulary to use in talking about what we do in the classroom.

SA A D SD The ETC will help me talk with my supervisor about my teaching.

SA A D SD The ETC helped me know how to observe another teacher.

SA A D SD The ETC showed me ways to teach more material faster.

SA A D SD The ETC showed me ways to keep kids more involved.

SA A D SD The ETC will help me make better educational decisions.

SA A D SD The ETC tries to make us all teach alike.

SA A D SD The effective teaching material doesn't apply to my subject.

SA A D SD We learned more by being in a mixed group--teachers from all subjects and grade levels.

Comments:

2. You know that a lot of practice is necessary before you feel really comfortable with using a new skill in your classroom.

Indicate which of the following you are willing to do for practice this fall. Check all that apply.

A. Peer Coaching

____Observe and be observed by another ETC teacher---and then conference
____Be taped and analyze the tape with another ETC teacher
____Do peer coaching during a planning period, or before or after school
____Do peer coaching if I get release time

Suggestions:

B. Coaching by a Supervisor (principal, department head, etc.)

____ Be observed and conference with a supervisor
____ Be taped and analyze the tape with a supervisor
____ I'd choose what skill to be coached on
____ A supervisor would coach me on any skill
____ Only if it's "off the record"
____ It's OK if a supervisor must makes this part of the regular supervision process

Suggestions:

C. Video Tape Analysis

____ Be video taped, but I would be the only one to see the tape

Name : ____
(If you don't want your name on the first sheet, just detach it and return separately)

*****Return to Mary Rutherford*****

APPENDIX 16:
ETC COURSE/TUTORIAL

COLCHESTER SCHOOL DISTRICT

ADMINISTRATIVE OFFICES
P.O. BOX 27
COLCHESTER, VERMONT 05446
TEL. 802/658-4047

Richard T. Grimley
Superintendent

Mary S. Rutherford
Assistant Superintendent

Roger C. Derby
Business Manager

To: ETC Summer Course Participants

Session I	Session II
Pat Baldwin	Kurt Faller
Dawn Bissonnette	Nancy Stevens
Sue Boyea	Carol Vaughn
Julie Dzewaltowski	Mona Tapia
Michele Fleri	Bonnie Clymer
Brian Hunt	Joanne Finnegan
Ann Joppe-Mercure	Donna Levesque
Mary Ann Kadish	Ron Matthews
Judy Maneely	Bill McClintock
Allegra Miller	Violet Moore
Lynn Schouten	Bill Romond
John Devino	Dave Saddlemire
Teri FitzGerald	Cheryl Benjamin
Rob Traquair	Ann Bradley
Sally Desautels	Debbie Moss

From: Donna Jacob

Date: June 2, 1987

Subject: Summer Course Plans

DATES/ LOCATIONS:
Session I: June 29-July 3, July 6-10 - Junior High Lib.
Session II: July 20-24, July 27-31 - High School, Room TBA

TIMES: 8:00-noon (on some days we may agree to start earlier, stop earlier)

REGISTRATION/ FEES

1. Complete Course Approval Form, send to Superintendent before course begins.
2. 3 recertification credits - free to all employees
3. 3 graduate credits - $240. If you want tuition reimbursement under the Contract or Support Staff Policy, you may fill out a deferred tuition agreement the first day of class. Otherwise, write check to Colchester School District.
4. Registration forms will be completed the first day of class.

INSTRUCTORS: The course will be taught by a team of professionals from Colchester School District.

Session I: Donna Jacob, Mary Silverman, Ken Tefft, Ken Perrotte
Session II: Donna Jacob, Phyllis Mayville, Paula Bass, Sue Patterson

COLCHESTER SCHOOL DISTRICT

EXPECTATIONS:

1. Readings and activities will be assigned throughout this course. The major project expected of each participant is to practice the skills by tutoring in the SLICK program.

2. Tutorial Program: The purpose of the tutorial program is to practice the instructional skills learned in the course. Each participant will be matched with a SLICK course offering that is age or content appropriate. In conjunction with the SLICK teacher, you will teach a four lesson mini-unit to a small group of students from the SLICK course. Consult the attached course list and then indicate on the tear-off any SLICK courses you could tutor in. More information and time for coordination will be given when we meet.

3. Observation/Coaching: Each of the four tutorial session will be observed and a conference will be held to identify examples of effective use of the instructional techniques. One observer/coach will be assigned to work with the participant for the tutorials. More information will be given during the course.

4. Refreshments: Coffee will be provided daily. Refreshments (fattening food) will be served the first day. We'll then ask for volunteers to help out for the remainder of the course.

5. Pre-ETC Survey: Please complete the attached survey and return it to me before or on the first day of the course.

attachments

PLEASE RETURN THE TEAR-OFF IMMEDIATELY!!

****

Name ___________________________

I'd be able to tutor in these classes:

Session I:
___Puppetry (1-4)
___Becoming Yourself (6-7)
___Spanish/Language Arts (3-5)
___Turn of the Century (6-8)

Session II:
___Musical Approach to Language (EEE-4)
___Puzzleland (6-7)
___Becoming Yourself (3-5)
___Study Skills (8)

Return to Donna Jacob, Junior High School

APPENDIX 18:
PUBLICITY 1

Colchester Chronicle, March 19, 1987

School Summer Program...SLICK

from Mary Rutherford, Asst. Supt.

Plans for SLICK Summer Learning for Kids are underway. Summer Program Directors Paula Bass and Brenda Bristol have announced that enrichment classes for students of various ages will be offered by Colchester teachers during 2 three-week sessions.

The first session begins Monday, June 22 and continues through Friday, July 10. Classes will be held at the Junior High School morning from 8-11 a.m.

For students completing grades 1-4: Puppetry - Making Reading & Writing Come Alive. Ellen Rasys, teacher. Students will write a play, make puppets, rehearse and perform their play for summer program students and community members.

For students completing grades 2-4: Hola al Mundo Espanol - Hello to the World of Spanish. Brenda Bristol & Donna Waldron, teachers. Students will split the morning between beginning instruction in Spanish Language and activities involving Spanish culture. Literature, writing, music, art, and cooking will be included.

For students completing grades 6-7: Becoming yourself. Virginia Irvine, Teacher. Students will learn nutritional information, physical conditioning skills, and self-help strategies that will help them to become the person they want to be. Daily activities will include aerobic conditioning, fundamentals of nutrition and exercise, and skills for emotional health, such as stress management.

For students completing grades 6-8. What will the Turn of the Century Look Like to Me? Catherine Simonson, teacher. Students will examine their own interests and how they relate to their future in the 21st century. Topics will include speculation about the future, career exploration, vocational information, and higher education. Field trips and visiting speakers will be featured.

The second session begins Monday, July 13, and ends Friday, July 31. Additional SLICK offerings are being planned. Basic tuition will be $50 per session and scholarships are available. A federal Excellence in Education Grant is supporting the balance of the summer program costs.

SLICK is coordinated with Colchester's Summer Recreation Program. Parents who want a full morning of learning and fun for their children may enroll them in tennis or swimming classes from 11:15-12:00 or sign up for supervised play at Bayside Park.

Registration forms will be available from any Colchester school or from the Superintendent's office. Parents wishing more information should contact Ma
Rutherford at 658-4047.

Our
Colchester Schools

Volume 3 Number 4 April 1987

Board Brief

The Board was pleased at community support for the 1987-88 school budget. Solid financial support is, of course, an essential part of a successful school system. But other kinds of support are important also. Our schools need the interest and involvement of the entire Colchester community. The Board is actively looking for ways to keep the community better informed about what is happening in the schools and to get more community members involved in the many interesting activities that take place there.

The Board is making special "gold cards" available to all senior citizens of Colchester, so they will be entitled to attend functions at any Colchester school free of charge. These cards can be obtained by calling the Superintendent's office at 658-4047. The Board hopes to see an increasing number of seniors and other community members enjoying informative and entertaining events right here in Colchester schools. These events include dramatic and musical performances, sports events, and informational meetings. Some of these events feature our own talented faculty and students, while others bring individuals and groups from elsewhere.

One program for which community involvement is particularly important is the alcohol and drug program under way in all the schools. The district is committed to educating students and the community about alcohol and drugs and to providing help and support to students and families with problems. This issue, however, is too large and too pervasive for the schools to handle alone. Community awareness and involvement are essential to the success of drug and alcohol abuse prevention programs. The Board urges parents and others to be informed and GET INVOLVED.

Lakers Thrill Fans in Tournament Play

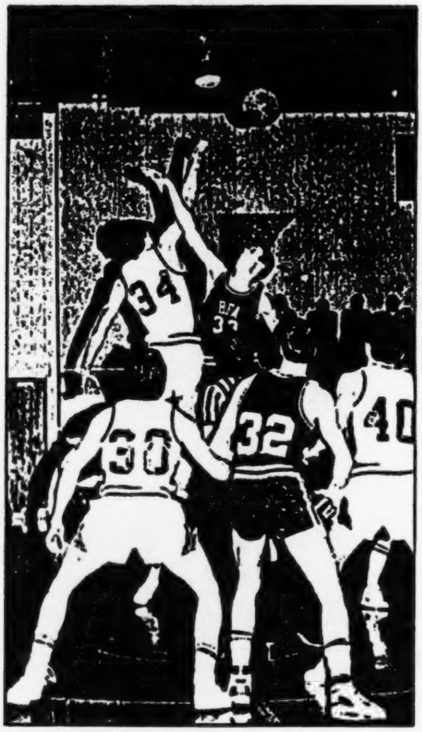

Photo by Yearbook Staff

KINDERGARTEN REGISTRATION MAY 4-5

Registration for next year's kindergarteners will be held Monday, May 4th and Tuesday, May 5th. A child must be five years old on or before January 1, 1988 to register for kindergarten.

Children **not currently attending kindergarten in Colchester School District** may register for first grade at this time. First graders must be six on or before January 1, 1988.

Registration hours are between 8:30 a.m. and 2:30 p.m. both days. Evening registration hours are Monday, May 4, from 6:30 p.m. to 8:00 p.m. Parents may register at Union Memorial School, Route 2A, Main Street or Porters Point School on Porters Point Road. Please bring proof of birth date and immunization records if possible — it will save another trip later.

Summer Learning For Kids

Registrations are being accepted for SLICK, Colchester's new summer learning program for kids. Morning classes for students from kindergarten through ninth grade will be offered in two, three-week sessions.

Session I, from June 22-July 10, will include classes in puppetry, Spanish language and culture, nutrition and fitness, and career exploration. Session II, from July 13-31, will feature language and music, nutrition and fitness, math games and problem-solving, and high school study skills.

Tuition for a three-week class is $50 and scholarships will be available.

The summer program is partially funded by a Federal Excellence in Education Grant and will be directed by Colchester teachers Paula Bass and Brenda Bristol. All classes will be taught by Colchester teachers who have taken the opportunity to plan and teach "something a little different" from their regular assignments.

While students are enrolled in SLICK classes, a group of 30 Colchester teachers and aides will be studying principles of effective teaching in the Effective Teaching Cooperative, a summer workshop taught by Donna Jacob and other Colchester teachers. The ETC participants will spend part of their time working with one or more students in a SLICK class.

Betsy Terry, Colchester's Recreation Director, has assisted in planning so that SLICK activities will coordinate well with Recreation Department offerings.

The yellow SLICK brochure has been distributed to students and is available from the Colchester Administrative Office. Parents are urged to register early to assure a place, and registration will also be possible at Recreation sign-up on May 4 and again on June 1-2 at the High School.

More information about SLICK can be obtained from Mary Rutherford, Assistant Superintendent, at 658-4047.

We urge all parents to register in May, and not put it off until just before school opens. The information is needed for classroom and transportation planning.

If you have questions, call Union Memorial principal George Costello at 878-2117 or Porters Point principal Martin Waldron at 862-7842.

APPENDIX 20:
COMMUNITY COORDINATION

SAILBOARDING

We are pleased to once again offer sailboarding lessons, through the cooperation of Champlain College Computer Camp. Classes include information on rigging and safe sailing procedures, board care and choosing a sailboard. Participants must be at least 12 years of age and be comfortable in deep water. A swim test will be given on the first day of class.

INSTRUCTOR: TBA
LOCATION: Bayside Park
DATES: Monday-Thursday; Friday will be "weather date"

TIMES:			
	Session 1	June 29-July 2	1:00- 2:30 p.m.
	Session 2	July 6-July 9	10:00-11:30 a.m.
	Session 3	July 13-July 16	1:00- 2:30 p.m.
	Session 4	July 20-July 23	10:00-11:30 a.m.
	Session 5	July 27-July 30	1:00- 2:30 p.m.
	Session 6	Aug. 3-Aug. 6	10:00-11:30 a.m.
	Session 7	Aug. 10-Aug. 13	1:00- 2:30 p.m.

FEE: $20.00

SAILING

Youth and adult sailing classes are offered through the Malletts Bay Boat Club. Youth classes are open to children 8-16 years old. All levels of sailor are welcome. Prior sailing experience is a prerequisite for the racing class. Participants should be comfortable in deep water; a swim test will be given at the first class.

INSTRUCTOR: Peter Duval
LOCATION: Malletts Bay Boat Club
DATES & TIMES:

Youth - June 22 - August 28

Mon/Wed	9:00 am - Noon	Intermediate
Mon/Wed	1:00 pm - 4:00 pm	Beginners
Tue/Thurs	9:00 am - Noon	Beginner Racing
Tue/Thurs	1:00 pm - 4:00 pm	Advanced Racing

Adult

Mon.	6:00-9:00 pm	June 22-July 20
Mon.	6:00-9:00 pm	July 27-Aug. 24

FEE: Youth $135 ($10.00 deposit to Recreation Dept. balance due to Malletts Bay Boat Club at first class)
Adult $ 60 ($5.00 deposit, balance due at first class)

Town of Colchester 1987 Summer Recreation Program

S L.I.C.K. - Summer Learning in Colchester for Kids

The Parks & Recreation Department has assisted in the planning of SLICK, Colchester's new summer learning program for kids, so that SLICK activities will coordinate with swimming and tennis lessons offered by the Parks & Recreation Department. Parents may register their children for a SLICK program during the evening recreation registration sessions on June 1st and 2nd.

Session I - June 22-July 10

PUPPETRY, Teacher - Ellen Rasys — Grades 1-4

HOLA al MUNDO ESPANOL (Hello to the World of Spanish)
Teachers - Brenda Bristol & Donna Waldron — Grades 3-5

BECOMING YOURSELF, Teacher - Virginia Irvine — Grades 6-7
Aerobic activities, nutrition and group activities to build confidence.

WHAT WILL THE TURN OF THE CENTURY LOOK LIKE FOR ME
Teacher - Catherine Simonson — Grades 6-8
Learning about the future, careers, vocations and higher education.

Session II - July 13-July 31

A MUSICAL APPROACH TO LANGUAGE — 8:00-9:15 am — Grades EEE-1
9:45-11:00 am — Grades 2-4
Teachers - Julie Dzewaltowski & Allegra Miller
Music and language activities especially for children with special needs in language and motor skills. Classroom teacher's OK required.

BECOMING YOURSELF, Teacher - Virginia Irvine — Grades 3-5
Aerobic activities, nutrition and group activities to build confidence.

ADVENTURES IN PUZZLE LAND, Teacher - John Devino — Grades 6-7
Mathematical puzzles, brainteasers, paradoxes and games of skill and chance. Some computer activities included.

MAKE THE GRADE - STUDY SKILLS FOR HIGH SCHOOL — Grade 8
Teacher - Mary Ann Barnes

FEE: $50 per session. Make check payable to: Colchester School District ($25 per session for A Musical Approach to Language)
TIMES: 8:00 - 11:00 am
LOCATION: Session I, Jr. High School; Session II, High School
For more information contact: Mary Rutherford at 658-4047

APPENDIX 21:

SLICK PARENT OPINION SURVEY

Dear Parent:

This is the first year of SLICK. We want to know your thoughts on how the program went and what could make it better. Please take a few minutes to tell us how you feel.

1. What did your child get out of the SLICK class this summer?

2. What did you **like** about the SLICK program and what were **problems**? For example:

   * the choice of classes

   * the price

   * time of day

   * length (weeks, hours a day)

   * location

   * the weeks it was offered

   * transportation

   * information, publicity

   * other

3. Should Colchester School District offer a summer program next year? **If yes**, please suggest topics for classes and other changes which would make it better.

Please return this to SLICK with your child or send it to Colchester School District, Box 27, Colchester. Thanks.

Your name is optional ____

APPENDIX 22:

PEER TUTORING PROGRAM

Objectives

1. Learner will:
    - A. Understand essential elements of instructional skills
    - B. Understand theory/rationale behind each skill
    - C. Demonstrate understanding of each skill through classroom use and written analysis of coached lessons and conferences
2. Tutor will:
    - A. Understand essential elements of instructional skills
    - B. Explain and give examples of essential elements of instructional skills
    - C. Explain theory/rationale behind each skill
    - D. Demonstrate each skill in own teaching
    - E. Script lessons
    - F. Analyze lessons and identify:
        - positive examples of skill (and rationale)
        - evidence of appropriate use of skill (effect)
        - alternative ways to implement skill
    - G. Conduct a conference

Steps in Learning Process

1. Input on the content
    - A. Readings: Teaching Makes A Difference
      Mastery Teaching
      ETC Notes & Handouts
    - B. Tapes: Teaching Makes a Difference (Cummings - elementary)
      Mastery Teaching (Hunter - secondary)
    - C. Explanation from tutor
2. Models of the content
    - A. Tapes: Teaching Makes A Difference (elementary)
      Cultivating Good Teaching (elementary & secondary)
      Colchester Tapes (Waldron, Jacob, Mayville, Palmer)
      Peering In On Peers (elementary & secondary)
    - B. Tutor or other teacher demonstrate in the classroom
3. Check Understanding
    - A. Discussion with tutor
    - B. Problem-solving sessions with principal or assistant superintendent
4. Guided Practice in classroom
    - A. Coaching by Tutor, Principal, Department Head, or Assistant Superintendent
5. Self-Analysis of Practice
    - A. Conference with Tutor
6. Accountability Checks
    - A. Coaching by Assistant Superintendent or Principal
    - B. Conference Summary from Learner to Assistant Superintendent
    - C. Action Plan and Progress from Tutor or Assistant Superintendent
    - D. Problem-solving sessions to review content and discuss problems in implementation--as needed

Requirements for Participants

To earn 3 recertification credits, the Tutor will:

A. Attend training sessions
   - Content review
   - Strategies/materials for teaching the content
   - Coaching (scripting, analysis, feedback)

B. Write Action Plan

C. Arrange and deliver input and correct model to Learner
   - 5 skills

D. Coach Learner at least 3 times

E. Report progress on action plan to Principal or Assistant Superintendent

F. Attend problem-solving sessions as needed

To earn 3 recertification credits, the Learner will:

A. Meet with Tutor on Action Plan

B. Get input on 5 skills (read, watch tapes, discuss, observe)
   - keep notebook

C. Plan and teach 5 lessons to practice the skills
   - observation and conference by a coach

D. Summarize each conference in writing to Principal or Assistant Superintendent

E. Attend problem-solving sessions as needed

Time Line

Month 1 - Tutor review content & materials. Write Action Plan.

Month 2 - Tutoring and Coaching: Select the Objective
Teach to the Objective

Month 3 - Tutoring and Coaching: Focus and Motivation
Retention & Transfer

Month 4 - Tutoring and Coaching: Monitor & Adjust

Note: The time line can be speeded up as much as the team can handle. The total time should not exceed 4 months.

ETC PEER TUTORING
ACTION PLAN

LEARNER______________________ TUTOR______________

SCHOOL________________________ SCHOOL YEAR_____________

DATE______________

SELECT THE OBJECTIVE (Task Analysis & Bloom):

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

TEACH TO THE OBJECTIVE & REINFORCEMENT:

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

FOCUS THE LEARNER & MOTIVATION:

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

TRANSFER & RETENTION:

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

MONITOR & ADJUST:

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

ACTIONP.LN2

HANDBOOK

PEER TUTORING PROGRAM

Objectives

1. Learner will:
    - A. Understand essential elements of instructional skills
    - B. Understand theory/rationale behind each skill
    - C. Demonstrate understanding of each skill through classroom use and written analysis of coached lessons and conferences

2. Tutor will:
    - A. Understand essential elements of instructional skills
    - B. Explain and give examples of essential elements of instructional skills
    - C. Explain theory/rationale behind each skill
    - D. Demonstrate each skill in own teaching
    - E. Script lessons
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        - positive examples of skill (and rationale)
        - evidence of appropriate use of skill (effect)
        - alternative ways to implement skill
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      Mastery Teaching (Hunter - secondary)
    - C. Explanation from tutor

2. Models of the content
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      Colchester Tapes (Waldron, Jacob, Mayville, Palmer)
      Peering In On Peers (elementary & secondary)
    - B. Tutor or other teacher demonstrate in the classroom

3. Check Understanding
    - A. Discussion with tutor
    - B. Problem-solving sessions with principal or assistant superintendent

4. Guided Practice in classroom
    - A. Coaching by Tutor, Principal, Department Head, or Assistant Superintendent

5. Self-Analysis of Practice
    - A. Conference with Tutor

6. Accountability Checks
    - A. Coaching by Assistant Superintendent or Principal
    - B. Conference Summary from Learner to Assistant Superintendent
    - C. Action Plan and Progress from Tutor or Assistant Superintendent
    - D. Problem-solving sessions to review content and discuss problems in implementation--as needed

Requirements for Participants

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C. Arrange and deliver input and correct model to Learner
   - 5 skills

D. Coach Learner at least 3 times

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Month 3 - Tutoring and Coaching: Focus and Motivation
Retention & Transfer

Month 4 - Tutoring and Coaching: Monitor & Adjust

Note: The time line can be speeded up as much as the team can handle. The total time should not exceed 4 months.

ETC PEER TUTORING
ACTION PLAN

LEARNER_______________________ TUTOR______________

SCHOOL_________________________ SCHOOL YEAR_____________

DATE______________

SELECT THE OBJECTIVE (Task Analysis & Bloom):

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

TEACH TO THE OBJECTIVE & REINFORCEMENT:

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

FOCUS THE LEARNER & MOTIVATION:

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

TRANSFER & RETENTION:

INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

MONITOR & ADJUST:

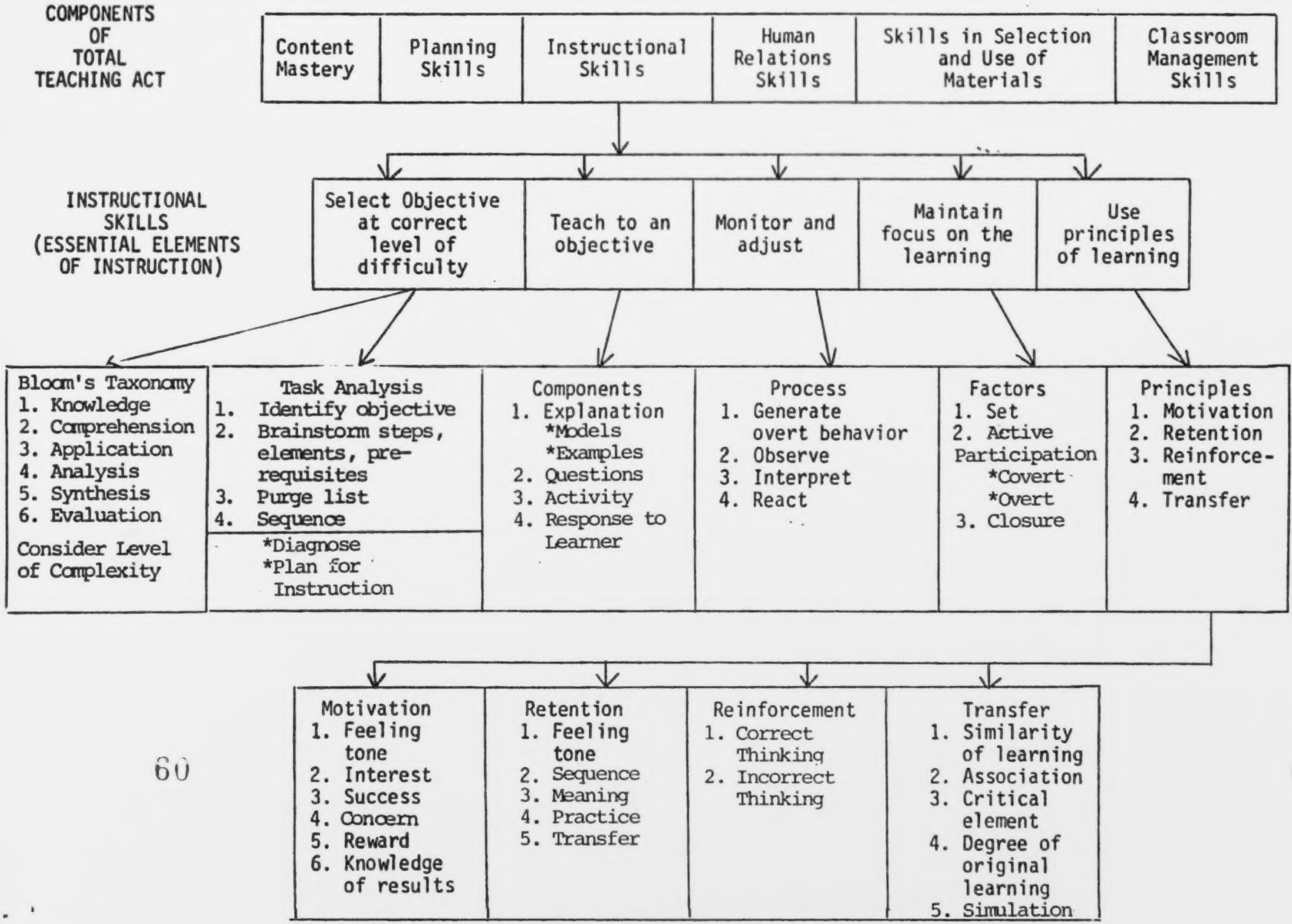
INPUT (WHAT & WHEN):

MODEL (WHAT & WHEN):

COACH (WHO & WHEN):

ACTIONP.LN2

EFFECTIVE TEACHING



COMPONENTS OF TOTAL TEACHING ACT

Content Mastery	Planning Skills	Instructional Skills	Human Relations Skills	Skills in Selection and Use of Materials	Classroom Management Skills

INSTRUCTIONAL SKILLS (ESSENTIAL ELEMENTS OF INSTRUCTION)

Select Objective at correct level of difficulty	Teach to an objective	Monitor and adjust	Maintain focus on the learning	Use principles of learning

Bloom's Taxonomy
1. Knowledge
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation

Consider Level of Complexity

Task Analysis
1. Identify objective
2. Brainstorm steps, elements, prerequisites
3. Purge list
4. Sequence

*Diagnose
*Plan for Instruction

Components
1. Explanation
    *Models
    *Examples
2. Questions
3. Activity
4. Response to Learner

Process
1. Generate overt behavior
2. Observe
3. Interpret
4. React

Factors
1. Set
2. Active Participation
    *Covert
    *Overt
3. Closure

Principles
1. Motivation
2. Retention
3. Reinforcement
4. Transfer

Motivation
1. Feeling tone
2. Interest
3. Success
4. Concern
5. Reward
6. Knowledge of results

Retention
1. Feeling tone
2. Sequence
3. Meaning
4. Practice
5. Transfer

Reinforcement
1. Correct Thinking
2. Incorrect Thinking

Transfer
1. Similarity of learning
2. Association
3. Critical element
4. Degree of original learning
5. Simulation

EFFECTIVE TEACHING VOCABULARY

1. What does the term mean?

2. How is the term relevant to effective instruction?

3. What factors might you consider in deciding when/how to use the concept appropriately in your teaching?

****

objective

task analysis

Bloom's Taxonomy

knowledge

comprehension

application

analysis

synthesis

evaluation

explanation

questioning for understanding

model

example

sequence

activity

response to the learner

set

covert participation

overt participation

closure

monitor

adjust

feeling tone/atmosphere

interest

meaning

success

knowledge of results

rewards

motivation

reinforcement

transfer

similarity

association

degree of original learning

critical/essential elements

simulation

schedule of practice

schedule of reinforcement

think time

guided practice

independent practice

retention

level of concern

SUMMARY OF SELECT THE CORRECT OBJECTIVE

INSTRUCTIONAL SKILL: The teacher selects the correct objective at the correct level of difficulty.

CONSIDERATIONS:

* Sources of Objectives - textbooks, teachers' guides, curriculum guides, state and federal mandates, teacher-made units

* Choice - teachers do have choice among objectives
  - which skills to teach and which to skip
  - which sequence
  - where to begin instruction (based on previous experience with grade and content; current information about the students; knowledge of the content; understanding of human relations--things like self-confidence, motivation, etc.)

* Outcomes - an objective tells the purpose of a lesson

* Appropriateness - student should be ready for the objective (have prerequisites) - student should need to learn the objective (it's necessary for some future learning or application)

* Challenge - an experienced teacher knows the appropriate objectives for a group. The challenge is how to select the correct objective for everyone in the class--not just the average student.

TASK ANALYSIS IS THINKING/DOING PROCESS THAT HELPS DECIDE ON THE CORRECT OBJECTIVE - 4 STEPS:

1. **State the objective**

   a. Can range from general goal to a specific objective for one lesson
   b. Be specific - the more specific you are, the easier it is to task analyze, plan, teach, and evaluate.

2. **Brainstorm** - break down the objective into smaller pieces, the steps the learner must take to reach the objective.

   a. Start with your objective, stated as specifically as needed

   b. Brainstorm the essential steps in the skill or the essential elements in the content
      - jot down anything that occurs to you
      - include prerequisite learnings which students must have already mastered in order to start on this new objective

3. **Purge your list** of non-essentials
   - cross out unnecessary steps
   - cross out unnecessary content--not an essential element
   - cross out prerequisites they really don't need--or you know they all have them

4. **Sequence your list**
    - steps usually have a logical order
    - essential elements might be ordered:
        - simple to complex
        - chronological
        - cause/effect
        - concrete to abstract
        - by importance
        - by ease in teaching

NOW YOU HAVE A TASK ANALYSIS. TO DECIDE WHERE TO BEGIN INSTRUCTION:

5. **Form diagnostic questions** about the items in the task analysis

    a. "Can the students...?"
    b. Answers to these questions tell you where to begin instruction and how to group students

6. **Choose a method of diagnosis** - how will you answer the diagnostic questions?

    - informal inventory
    - questioning
    - "brain dump" - ask them to tell or write everything they know about the topic
    - pre-test
    - draw on your past experience
    - review homework
    - journals
    - your records--who mastered what
    - observation--do they act like they understand?
    - give sample problem or question for all to do
    - take a writing sample
    - ask another teacher who knows the student(s)

7. **Identify the correct level(s) of difficulty for group and individuals** - and plan how to handle the instruction

    a. Grouping - by interest, ability
    b. Vary degree of guidance, giving some students step by step instruction while others work independently
    c. Vary amount of time available, more able students have less time and are then given enrichment
    d. Vary the amount of work required, able students doing more
    e. Peer tutoring, so more able helps less able--gives guided practice for less able, independent practice to more able
    f. Cooperative Learning Groups
    g. Parent volunteers, student teachers
    h. Create tone of acceptance of individual differences
    i. Have parents help at home
    j. Involve resource room, chapter 1, gifted program
    k. Give students choice of materials, learning tasks
    l. Contracting - so much work for such and such a grade
    m. Teach to different learning channels
    n. Schedule for different groupings

BLOOM'S TAXONOMY

INSTRUCTIONAL SKILL: The teacher selects the correct objective at the correct level of difficulty.

Bloom's Taxonomy is a classification of objectives in the area of knowledge.

Bloom's Taxonomy is a tool in selecting the correct objective at the correct level of difficulty.

A general objective could have specific lesson objectives at any and all Bloom levels:

- each level builds on those preceding it
- a base in knowledge and comprehension is ESSENTIAL for thinking at higher levels
- higher level thinking skills are essential to problem solving
- teachers use various Bloom levels with one group by varying the level of question or activity asked of various students
- students of any age can deal with all 6 levels of Bloom, provided the content is appropriate, i.e. young children can compare familiar things, create original stories, evaluate which of two things they prefer and tell why

Example: A general objective is that a child read and understand the story of _Goldilocks_.

Specific questions at each Bloom level might be:

Knowledge: Who were the main characters in Goldilocks? Tell what Goldilocks did first? did second? did last at the bears' house?

Comprehension: Tell us the story of _Goldilocks_ in your own words. How do you know the bears' house had two floors?

Application: If you found an open house during a hike, would you go inside? Why or why not?

Analysis: What was the moral of the _Goldilocks_ story? How are the stories of _Goldilocks_ and _Little Red Riding Hood_ alike? how are they different?

Synthesis: Write new ending to _Goldilocks_.

Evaluation: Do you think Goldilocks deserves to be punished? Why?

BLOOM'S TAXONOMY OF COMPLEXITY OF THINKING IN COGNITIVE DOMAIN

KNOWLEDGE	To recall; to remember data, facts, rules, processes, information as it was received and to give it as it was received. Other key words: memory, memorize. Typical generators: Who? When? Where? What?
COMPREHENSION	To find correct meaning in the recalled data, facts, information and to express the meaning through some sort of translation: different words, some form of representation (cartoon, picture, graph, model, demonstration). Other key words: understand, in your own words. Typical generators: Explain.... Why? Give an example not already given. Illustrate.... Paraphrase.... Summarize.... Predict what will happen....
APPLICATION	To use the understanding of pieces of knowledge in new real-life situations such as accomplishing a new task, solving a problem, with minimum or no directions. Involves transfer of comprehension to a real-life situation. Other key words: use, apply, solve. Typical generators: (Sometimes the generator is implied): Develop a plan.... Compute.... What would be a practical solution?
ANALYSIS	To break a whole into its parts and to perceive the relationships between those parts. Other key words: similarities, differences, theme, conclude. Typical generators: Compare.... Contrast.... Main idea.... Causes.... Effects....
SYNTHESIS	To use pieces of understood information to create a new whole. Other key words: invent, design, originality. Typical generators: Write a story (poem, etc.). Write a new ending. Design a new plan. Write a hypothesis and design an experiment.
EVALUATION	To choose between two or more options and support one's choice, using criteria that are provided or are one's own. Other key words: judge, evaluate, opinion. Typical generators: Which is better? (Why?) Which is best? (Why?) Which is more practical? (Why?) Which is least....? (Why?) Write a better plan. (Why?)

J. William Etheridge

"SHOPPING LIST" OF VERBS
WRITING THE OBSERVABILITY COMPONENT OF THE LESSON OBJECTIVE

SIMPLE TASKS
choose
collect
complete
copy
count
define
describe
designate
detect
discriminate
distinguish
find
identify
indicate
isolate
label
list
mark
match
name
note
omit
order
point
provide
recall
repeat
select
state
tally
tall
underline

STUDY SKILLS
arrange
categorize
cite
circle
classify
compile
diagram
document
find
formulate
include
itemize
locate
organize
quote
record
relate
search
signify
sort
suggest
support
underline
volunteer

ANALYSIS SKILLS
analyze
combine
compare
conclude
contrast
criticize
deduce
defend
evaluate
explain
formulate
generate
infer
paraphrase
plan
present
structure

SYNTHESIS SKILLS
change
design
develop
discover
expand
extend
generalize
modify
paraphrase
predict
propose
question
rearrange
reconstruct
regroup
rename
reorganize
reorder
rephrase
restate
restructure
rewrite
signify
simplify
synthesize
systematize

ARTS & CRAFTS
assemble
brush
build
carve
color
construct
cut
draw
drill
finish
fit
fix
fold
form
frame
grind
hammer
handle
illustrate
make
melt
mend
mix
mold
nail
paint
paste
position
pour
press
roll
rub
sand
saw
sculpt
sew
shake
sketch
smooth
stamp
stir
trace
trim
varnish
wipe
wrap

DRAMA
act
correct
direct
display
emit
enter
exit
express
leave
pantomime
pass
perform
proceed
respond
show
start
turn

LANGUAGE
abbreviate
accent
alphabetize
argue
articulate
capitalize
edit
indent
outline
print
pronounce
punctuate
read
recite
spell
state
summarize
verbalize
write

MATHEMATICAL
add
bisect
calculate
check
compound
compute
count
divide
estimate
extrapolate
extract
graph
group
integrate
interpolate
measure
multiply
number
plot
prove
reduce
solve
square
subtract
tabulate
tally
verify

MUSIC
blow
bow
clap
compose
conduct
finger
harmonize
hum
mute
play
pluck
practice
sing
strum
whistle

PHYSICAL
carry
catch
chase
climb
coach
coordinate
grip
hit
hop
jump
kick
lift
perform
pitch
run
score
skate
ski
skip
somersault
swim
swing
throw

SCIENCE
calibrate
compound
connect
convert
demonstrate
dissect
graft
insert
lengthen
limit
manipulate
operate
plant
prepare
remove
replace
report
set
specify
time
transfer
weigh

SOCIAL
accept
allow
answer
buy
communicate
compliment
contribute
cooperate
disagree
discuss
excuse
help
inform
interact
join
lend
meet
offer
participate
react
relate
serve
share
supply
talk
volunteer
vote

Figure 3

RESOURCES FOR TEACHING ETC

SELECT THE CORRECT OBJECTIVE

Input:

Teaching Makes a Difference, Cummings - Chapters 2 & 3
- Tape 1 - Selecting Obj.
  Part 1 - Bloom
  Part 2 - Task Analysis

Mastery Teaching - Tape 12, Extending Their Thinking (Bloom)
Chapter 12

Cultivating Good Teaching - Tape #3, Doing A Task Analysis

Model: (evidence of Task Analysis)

Cultivating Good Teaching - Tape 1, Animal Behavior
Tape 2, Ellipse, Booting Up
Tape 3, Task Analysis

Peering in On Peers - Tape on Elementary Music

Colchester Tapes - Palmer, Jacob

TEACH TO THE OBJECTIVE

INSTRUCTIONAL SKILL: The teacher teaches to the objective.

DEFINITIONS: Teaching to the objective is what the teacher does to bring about learning and what the learner will do to demonstrate that learning.

TEACHING TO THE OBJECTIVE INVOLVES 4 CRITICAL ELEMENTS:

1. **EXPLANATION** - This is the input. The teacher decides what part of the content must be delivered to the learner in order for the learner to master the objective. The teacher decides how to provide input, considering all learning modalities--visual, auditory, and kinesthetic. Examples and modeling are essential parts of explanation. The teacher makes sure that the first example given is clear and appropriate.

Note that lecture is not the best or only way to give explanation. Students can get input by hearing, seeing, and doing. Therefore, explanations can be given through lecture, previous student learning, film, filmstrip, tapes, flannel board, reading, observing, demonstration, field trip, writing notes, student presentations, experimenting, manipulating materials, etc. Explanation may be given to the whole class at once, to small groups, or to individuals.

Principles for effective explanation:

*determine basic knowledge needed and organize it
*keep it clear and simple
*present a small amount at once
*congruent to the objective
*use familiar words
*plan ahead clear examples and effective models which:
- highlight the critical attribute
- avoid controversy
- are accurate and unambiguous
- don't introduce exceptions until later

Principles of effective chalkboard (or other visual) use:

* say it before you write it (so learners can process it as you write)
* use key words, simple diagrams
* use position to show relationship
  - outline
  - side-by-side
  - chronological
  - arrows for direction, cause and effect
* erase before introducing new concept
* write clearly, spell correctly

2. **QUESTIONING FOR UNDERSTANDING** - The teacher checks to see if learners understand the explanation. This is done before drill or practice. The teacher uses information from the questioning to decide if the group is ready to do practice or if more explanation is needed.

Caution: Don't confuse questioning for understanding with questioning for explanation. Teachers sometimes give explanation by drawing the new information out of the students through skillful questioning. This is an effective form of explanation *when students have enough background* to respond to the teacher's carefully planned and sequenced questions. Questioning for understanding is different. It is a check on *understanding of new input* which students have just received.

Questioning for understanding encourages *every* learner to think about the learning. Techniques which encourage thinking are:

- Think Time - teacher consciously waits 3-5 seconds before calling on someone to answer
- Teacher asks question first, gives Think Time, then calls on someone to answer
- Teacher calls on learners who don't have their hands up--some teachers tell students not to volunteer by raising their hands during checking for understanding since every student is expected to be able to answer the questions.
- Teacher calls on a learner, but withholds response. Instead teacher calls on other learners to see if they agree and why, or to see if they can add to the original answer.
- Teacher provides for every learner to answer the question by doing it in writing, show of hands, thumbs up or down, choral response, showing an answer card, number of fingers up, etc.
- Teacher uses "dipsticking"--calling on a sample of students. May call on most able students first or may vary difficulty of question.

Effective questioning for understanding is:

- clear
- congruent to the learning

3. ACTIVITY - The teacher provides an activity so learners can practice the new learning. Effective practice requires *all* learners to think about the critical elements of the new learning. Teachers provide two types of activity:

a. Guided Practice - Takes place under teacher direction with monitoring, feedback and correction occurring during or immediately after the activity. Guided Practice enables the teacher to catch and correct errors and make sure every learner is ready for Independent Practice. Examples of Guided Practice: seatwork; in-class writing; oral drill; discussion in large or small group; motor drill; in-class review; solving problems; answering written questions; cooperative learning group activities; lab work; rehearsals; art work, etc.

b. Independent Practice - Takes place at home, in study hall, or in the classroom without teacher guidance. Independent Practice usually follows Guided Practice and strengthens new learning through drill and functional use. Examples are: homework; silent reading; quizzes or tests; writing a story, report, essay; researching; home practice of musical instrument; reviewing for a test outside of class; any drill or seatwork activity which is to be done independently.

Effective activity is:

- * preceded by clear directions
- * congruent to the learning--as close to the desired objective as possible
- * designed to maximize retention (more on this when we do retention theory)

4. **RESPONSE** - The teacher responds to the efforts of the learner in the terminology of the learning. When learners are answering questions or doing other activity to show what they have learned, the teacher reinforces the correctness/incorrectness and sometimes recalls the learning, using the new vocabulary.

Response to the learner in terms of the learning is especially necessary:

- * in the early stages of learning something

- * with slower learners because it reinforces specifically what the learning is

****

In planning a lesson that teaches to the objective, the teacher decides what explanation, questions for understanding, and activity will lead to mastery of the learning. The order in which these critical elements occur in a lesson will vary. Response to the learners' efforts takes place throughout the lesson.

RESOURCES FOR TEACHING ETC

TEACH TO THE OBJECTIVE

Input:

Teaching Makes a Difference, Cummings - Chapter 4
- Tape 2 - Teach to the Obj.
- Tape 4 - Planning a Lesson

Mastery Teaching - Tape 5, Providing Information
Tape 6, Teaching Both Halves of the Brain
Tape 7, Modeling What You Mean
Tape 9, Checking Their Understanding
Tape 11, Guiding Their Practice
Tape 13, Dignifying Errors to Promote Learning
Chapters 5,6,7,9,11,13

Model:

Cultivating Good Teaching - Tape #4, Checking for Understanding
Tape 1, Animal Behavior
Tape 2, Static Electricity, Booting Up
Tape 3, Decimal Points

Colchester Tapes - Waldron, Jacob, Palmer, Mayville

MONITOR AND ADJUST

INSTRUCTIONAL SKILL: The teacher monitors the progress of the learner and makes necessary adjustments.

* The teacher monitors:
- the correctness of the objective
- progress along the lesson line
- teacher's own behavior
- students' involvement (thinking, doing)

* Monitoring is assessing the learning while it is taking place, not waiting until the end of the lesson

* Adjustments take place during the lesson and influence future planning

* Time pressures cause teachers to try to "cover" material, even when learners aren't learning it. We all do it sometimes, but:

- TELLING is not the same as TEACHING
- COVERING is not the same as LEARNING

THERE ARE 4 STEPS TO MONITORING AND ADJUSTING:

1. **Teacher generates relevant, observable behavior in students** by:
   - questioning for understanding
   - assigning relevant practice activities (students write, talk, demonstrate, construct, diagram, etc.)
   - having students contribute to the explanation (giving examples, modeling, etc.)

2. **Teacher monitors student thinking** by:
   - asking everyone to think, then calling on a few to answer, add to answer, agree/disagree
   - asking everyone to think, then calling on everyone to signal their answer by hands, nods, choral response
   - asking everyone to think, then having everyone share with a neighbor or in a group and calling on a representative from each group
   - observing work, reading answers, checking diagrams as students do an activity
   - observing body language, expressions, general behavior

3. **Teacher interprets the behavior** and if it is incorrect, considers possible reasons for incorrect thinking:

   - inattention
   - missed critical elements of content
   - lacks prerequisite skill/knowledge
   - doesn't understand directions
   - fears failure, low self-esteem
   - closed mind, sure already knows the content
   - unmotivated
   - can't receive explanation in form offered
   - can't answer in form required
   - and you can think of more

4. **Teacher adjusts accordingly** such as:

- continues lesson
- changes objective to more or less difficult
- changes explanation--adds visuals, changes modality, changes sequence, more/less information presented, rewords, highlights critical elements, gets more student participation, has peers explain
- changes questions--rephrases, makes more or less complex (Bloom), prompts, gives clues, helps make associations, probes to find what student is thinking
- changes activities--gives more practice, gives more guidance during practice, has peers practice together, breaks practice into parts, changes modality of practice, forms groups
- uses variables of motivation--interest, tone, concern, success, knowledge of results, rewards
- STOPS THE LESSON and adjusts instruction for the following day

RESOURCES FOR TEACHING ETC

MONITOR AND ADJUST

Input:

Teaching Makes A Difference, Cummings - Chapter 5
- Tape 2 - Monitoring & Adj.

Mastery Teaching - Tape 11, Guiding Their Initial Practice
Chapter 11

Model:

Cultivating Good Teaching - Tape 3, Ordered Pairs, Task Analysis, Decimal Points

Peering in on Peers - Tape on J.H. Science
Tape on H.S. English

FOCUS ON THE LEARNING

INSTRUCTIONAL SKILL: The teacher maintains the learner's focus on the learning from the beginning to the end of the lesson.

ASSUMPTIONS:

* Many students won't focus on the learning without help--they are thinking of other things when instruction begins

* The teacher's goal is to get thinking off other lines of thought and onto the lesson line that leads to the objective

* Throughout the lesson, the teacher keeps learners on the lesson line, and avoids getting side-tracked (Birdwalking) because teacher doesn't want learners to start thinking on a line that doesn't lead to the objective

* "Focus" or "attention" means that the student is actively participating by thinking about the learning. Focus implies involvement of the learner, not just sitting there and behaving.

* Highly motivated students may start right out on the lesson line, but even these students need to maintain active participation throughout the lesson.

FOCUSING THE LEARNER HAS 3 CRITICAL ELEMENTS:

1. **ANTICIPATORY SET** - Teacher strategies designed to provide a mental preparedness for the new learning. The teacher usually does three things to create an anticipatory set:

a. **States the Objective** - Teacher tells students what they will learn and how they will show they learned it. Some teachers write the objective on the board and students automatically look for it each day.

Example: "By the end of class you will know what a simile is and be able to pick one out in the book you're reading."

b. **States the Relevance** - Teacher explains how the new learning relates to past, present, or future experiences of the learners:

- Reviews past learning and shows how new learning is the next step. Shows learning as continuum, with little pieces fitting into a bigger plan.
- Relates to current interest of students, recent experience, an individual student, a current event
- Relates to future learning, explaining how today's learning will enable students to learn or do something in the fairly immediate future, not necessarily "so when you grow up..."

By stating the relevance of every learning, the teacher encourages transfer of previous learning into new situations, and transfer of new learning into future applications.

Stating the relevance answers the question, "Why are we doing this?"

c. **Involves the Learner** - Teacher gets every learner to think about and possibly act on the learning. It "hooks" the learner's interest:

- * may relate to own life and experiences
- * may review previous learning
- * may be dramatic or novel

An effective anticipatory set:

- * answers the question, "What are we doing today? Why?"
- * is short (less than 3 minutes)
- * gets most or all learners thinking about the day's lesson

Besides getting students on the lesson line, a set may:

- * give practice in previous learning (review)
- * give diagnostic information (are they ready?)
- * aid retention (first things are recalled best)
- * increase effectiveness (students learn more easily if they know what they're learning)

2. **ACTIVE PARTICIPATION** - The teacher keeps the learner actively participating by thinking about the learning throughout the lesson.

- * Bloom says active participation accounts for 20% of the variation in student achievement.
- * Since the short-term memory only holds 7 bits of information, learners need to stop and think about new learning often if it is to get stored in long-term memory--not lost

There are two types of active participation:

* **Covert is not observable.** It's why "think time" is important--it should precede answering of questions.

Words to encourage covert participation:

think about
visualize
make a mental list
pretend
imagine
what if..
just suppose
picture in your mind
put yourself in the place of
take a minute to think

Think time of 3-5 seconds improves the quality of thinking:

longer responses
more confidence in answers
more inferences
more logical
students ask more questions

- **overt is observable**--can see, hear, read, measure it

Ways to get overt participation:

thumbs up
call on several students (dipsticking)
have students tell a partner
invent questions
have everyone do and observe
choral responses
listen to others and repeat
have students "show me"
questioning techniques (see Questioning for Understanding)

3. **CLOSURE** - The teacher gets a summary of the new learning _from the learners_. This happens in the last minute or two before moving on to the next class or lesson. Closure has important functions:

- gives a final "check for understanding"
- gives a final practice
- encourages transfer of the new learning to independent practice or the next lesson

Closure is difficult because students may be tuned out, waiting for next class, cleaning up, etc. Students are also attentive, however, because they are waiting for the signal to move on to the next lesson. Teachers take advantage of the "window of attention" to get closure.

The teacher asks learners to summarize the learning, using techniques which get every student thinking. For example:

- have everyone write in notebook a summary sentence, the main idea, 2 major points, etc.
- have everyone think of essential elements of lesson, give think time, call on several students
- use summary as dismissal device, "When you can give one reason for X, you may line up for lunch."
- have pairs of students tell each other the main point, give each other one example
- have every student "do" the new learning--do one last problem, sing the song, spell the word, stand on their heads

With older or more able students, the teacher asks for closure that requires use or analysis of the new learning. For example:

- How will this new information change how you do something?
- What did you find most useful in today's lesson?
- Which was the most persuasive reason you heard today? Why?
- What part of the process will be most difficult to do? Why?

****

Sometimes, the teacher decides to have the learners go off the lesson line. The teacher discusses a side issue, changes to a new activity, changes the objective in midstream. This is a conscious teaching decision, made because the teacher judges something to be more important or appropriate at that time than the original objective.

From:

Managing to Teach,

Carol Cummings

Learning - 4

CHAPTER 8

Accountability Through Questioning

Can you remember having a teacher you wouldn't dream of being a problem for? Not because that teacher was an autocratic ruler, but because you just didn't have time time to even think of other things to do? That teacher kept you so involved in the lesson there wasn't time to chat with a neighbor or pass a note. Chances are, that teacher excelled in what researchers call "momentum" and accountability (Kounin, 1970). In fact, it seems as if one of the hallmarks of successful class management is keeping pupils actively engaged in productive activities rather than waiting for something to happen (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979).

These teachers keep all students actively engaged because they have high expectations for all students. It's easy to spot such teachers. They don't "write kids off" because of student background or attitude. They assume responsibility for teaching all students, not just those who want to learn. They are always looking for new ideas when old strategies no longer work. These expectations and attitudes create a "self-fulfilling prophecy" (Brothy & Evertson, 1981). If you believe a student can learn, you persist in teaching that student until the learning occurs!

Our expectations may determine who is actively participating in the classroom. This chapter will explore techniques for keeping all students involved through teacher questioning. This participation won't be achieved by just asking students more questions! Students already have between 3-5 questions fired at them per minute (Rowe, 1978). The secret lies in how teachers ask questions, to whom they are directed, and how teachers respond to student answers.

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WHO IS TYPICALLY INVOLVED

Active participation in classroom activity is not fairly distributed. The students who probably need it the most experience it the least: low achievers. Think of those students in class you suspect are low achievers. Are they the same students who cause management problems? We may create this situation ourselves! In many cases, it is our expectations that these students are low achievers that determines their lack of opportunity to respond in the classroom (Cooper, 1979).

Teachers smile more often and nod their heads more if they perceive a student as bright. These same students are given more opportunity to respond in class and are given more positive and encouraging feedback than low achievers (Cornbleth, Davis, & Button, 1974). Pity the students for whom a teacher has low expectations:

-they are given less time to answer a question
-more call-outs are allowed if they should as much as pause in answering a question
-the teacher is less likely to elaborate on their answers
-even if their answer is correct, the astonished look on the teacher's face communicates low expectations

Is it any wonder, then, that these students find "bigger and better" things to do, probably not related to the task at hand?

It's easy to see how this self-fulfilling prophecy continues to be reinforced. The teacher asks a question—a few hands go up—teacher calls on someone. That someone is generally a bright student who knew the answer immediately. Or, the teacher uses a student's name at the beginning of the question: "Sia, can you tell me . . . ?" Unconsciously, we want students to have correct answers. It's easier to call on someone who has the right answer. It even makes us feel better as a teacher—reinforcement that we taught!

If a low achiever is called upon and gives an incorrect answer, it is a poor model for others to hear. The teacher must then take time to respond to the incorrect response. It's hard to be positive with a wrong answer! The momentum of the class is slowed down if reteaching of the same material must occur. How easy it is to move on to someone else who has the right answer—a high achiever! It might look like this:

Teacher: "What countries were involved at the start of World War II?"
Low expectation student: "Canada?"
Teacher: "No, Mike, you haven't been listening! Who has the right answer?"
High expectation student: "Germany, Great Britain."
Teacher: "Great, Rollo. I knew you could do it!"

One questioning strategy heard consistently at all grade levels begins with: WHO CAN TELL ME . . . This *who can tell me* preface to our questions subtly reveals expectations: some students will have the answers, some won't. One can't help wondering if those students who have a low academic self concept just tune out the questions entirely as soon as the cue *who can tell me* is given.

Cooper (1979) has developed a model describing the effects of teacher expectations on student performance:

1.Teachers have different expectations for student performance—depending upon ability and background.
2.Teachers find that when low expectation students respond, they have less control over student responses and the interaction is less likely to end successfully.
3.Low expectations students therefore face a more negative climate. They are criticized for control purposes.
4. Low expectations students decrease participation rates in class; they are less likely to respond. They develop the belief that the teacher, not their effort, determines success.
5. A self-fulfilling prophecy has begun.

TECHNIQUES TO CREATE EQUAL PARTICIPATION

Understanding the dynamics of the cycle may be enough to change unequal treatment of students. Good and Brophy (1974) found that just giving feedback to teachers about their behavior caused them to increase their contacts with low expectation students. Just this change in teacher behavior resulted in lows seeking more contacts with teachers and a tendency for them to be better behaved.

Randomization

To insure that expectations aren't influencing who is called upon in a class, we need a technique to guarantee randomness. Examples might include:

1. Have a can of popcycle sticks, each with the name of a student. When a question is asked, draw a stick to see who to call upon. Students soon learn that raising their hand isn't the determiner of who's called upon. They also learn that the teacher isn't picking favorites or just plain "picking on someone" (for management purposes).
2. Some secondary teachers have a deck of 3 x 5 cards with a student name on each card. They shuffle the deck at the beginning of each period. Some even record on the card whether the student attempts to answer the question. They then have a fairly accurate record of class participation.
3. When several students are needed for board work, use the "army style selection" process. Select (or have students select) a random number from 1 to 10. If the number is three, point randomly to class list and call out every third name!

The random selection technique has a double edge to it. Students know in advance they are likely to be called upon—they're more likely to be listening. Teachers, knowing they have an equal chance of calling on a low, may provide better instruction before asking the question—to avoid having to handle an incorrect response!

Wait Time

Rowe (1978) found that just calling on lows more often isn't enough. The "I don't know" or "No" response was often as high as 30% in normal classrooms. She found that teachers could change this lack of responding pattern of lows by adding "wait time" after asking a question and waiting after a student response. That is, the teacher asks a question and waits about three seconds before calling on a student. The student responds and again the teacher waits before reacting. For example:

"I want all of you to think of the author's point in the story."

3 SECOND WAIT

"John, what do you think?"
John answers"................................"
3 SECOND WAIT
Teacher reaction/response

Rowe found teachers and students alike were affected by the wait time. Outcome variables particularly relevant to increasing active participation by all included:

1. Length of student response increased.
2. Number of unsolicited but appropriate responses by students increased.
3. Failure to respond decreased.
4. Confidence in responding increased.
5. Contributions by "slow" students increased.
6. Disciplinary moves decreased. Without wait time there was more restlessness, inattentiveness, and unsocial behaviors.

In addition to wait time, subtle changes in how the teacher phrases questions help increase active participation. Consider the difference between the following two questions:

1. What is the difference between a noun and a pronoun?
2. Think about the difference between a noun and a pronoun. Raise your hand when you're ready with your answer.

In the first example the teacher is likely to get a "blurter-outer": an eager responder who deprives the rest of the class of their chance to think of the answer. The lower the level of the question (i.e. calling for a rote recall type answer), the more likely someone is to blurt out —- unless

1. The question is phrased to encourage thinking.
2. Students are told what signal to use to cue the teacher they are ready with an answer.

The following patterns demonstrate both characteristics:
-Take a moment and imagine that . . . Raise your hand when you're ready.
-Pretend that . . . Look up at me when you can tell me.
-Think to yourself . . . Thumbs up when you're ready to respond.

-Consider for a minute . . . I'll call on a non-volunteer for an answer.

GROUP RESPONDING

Group responding is another technique to consider in maintaining momentum and accountability. While the research is limited and mixed on the benefits of group responses over individual responses, it would seem logical to try any technique to get low achievers involved in the lesson. Group response is a way to hold everyone accountable for being on task and gives the teacher opportunity to monitor the understanding of the whole class—not just a selected few. It should also encourage more learning if all students have to mentally process information. This recitation gives students practice in retrieving information, necessary for effective learning (Higbee, 1977).

Simply asking for a group response may not accomplish the benefits described. Unless the teacher can cue students to respond in unison, a ripple response occurs. For example, when asking "What is 7 x 9?", a few eager students blurt out "63" and a fraction of a second later the less eager echo "63". The "echoers" haven't had to rehearse retrieving information; only listen to their peers. Likewise, when the question calls for a finger signal, "How many syllables in family?", a few three-finger hands begin waving. They provide the model for the remainder of the class to copy.

A better guarantee that everyone has thought of the answer when asking for a group response is to give a cue for response in unison. "When I nod my head, you may answer."

GROUP TECHNIQUES

Choral responding is fast, efficient, and requires no extra materials. It allows all students to respond anonymously. The drawback is that the teacher only gets a general reading on the ability of the class to answer. It is difficult to monitor specific students. It's also limited to questions demanding a low level, rote type response. Teacher: "Is an alder an evergreeen or deciduous tree?" Class: "Deciduous." Choral responding wouldn't work if multiple single word answers or complete statements are required. A question like "What is an example of a proper noun?" could be changed to allow only one response: "Which is a proper noun—cat or Garfield?" Younger students are often taught to whisper the answer to eliminate the tendency to shout out answers.

Choral responding keeps students on their toes without interrupting the momentum and pacing of the instruction. It sometimes sounds like a *fill in the blanks lecture.* "Class, today we'll study the knee joint. You'll remember that another name for joint is ______ what? Yesterday we learned that the two bones below the femur are the tibia and ______ what?"

Signals are similar to choral responding in that they are efficient and require no extra materials. Signals include the use of thumbs, fingers, pointing, and gesturing to indicate an answer.

After selecting one student to respond, the rest of the class might be asked if they agree (thumbs up), disagree (thumbs down); or not sure (thumb sideways). Used occasionally, this technique works. However, when every teacher at a middle school I visited recently, used this strategy repeatedly — the results were far from successful. By the time students reached their 7th period class, some students were observed with a hand in a "thumbs up" position throughout the lesson! A perfect cover while they engaged in other off-task behavior!

Finger signals can be used to indicate numerical answers or "choice type" answers. It is most effective when students are taught to signal with hand against chest. This eliminates the ripple effect of students in the first row advertising the answer to all sitting behind. "Show me how many tens are in 47." "Show me how many teaspoons are in a tablespoon." "I'll name a food. You signal 1 if in the meat group; 2 if dairy; 3 if vegetables or fruit; 4 if grain." Multiple choice questions lend themselves to any subject as well as all grade levels.

Individual chalkboards have always been popular at the primary grades to engage all students. Children bring old socks from home to use as a mitt for erasing. A similar technique for older students is to provide "think pads".

"Ok class, if you understand, give me 1 little finger"
Which one do ya wanta give him?

" . . . more effective teachers arranged their classrooms and planned activities that allowed them to monitor their students more easily and more thoroughly."

Evertson & Anderson, 1979

Old or non-usable worksheets are cut into fourths and a pad of them stapled at the corner. These small scratch pads remain on the corner of each student desk—for easy accessibility. "Try to solve this equation on your think pad." "Write a sentence showing possession." Teachers may either walk around and monitor work or have students hold up their pad. Some secondary students seldom remember to bring note paper to class and don't want to use their precious paper for practice when they finally do bring it. Think pads avoid this problem. Plastic lids (i.e. from a Cool Whip or other plastic container) can be used as a handy writing pad. Crayon writing can be seen from the front of the room easily and can be wiped off with a small piece of Handi-Wipe cloth. "Class, draw a right triangle on your lid. Now, FLIP YOUR LIDS!"

Sharing answers with a neighbor gives everyone a chance to verbalize a more complex answer. As students are explaining to a peer, the teacher can walk around and monitor particular students. It's important that desks or tables be arranged to allow maneuverability. Many times our students in the back two corners of the room are the most likely to be off task—and the least likely to be monitored! "Describe the events leading up to the Industrial Revolution to someone sitting close to you. I'll be around to listen."

If we are making *quality* use of time, we must be sure to include more than rote recall type questions.

If each and every student has to *construct* an answer, we also increase comprehension of the lesson. Effective strategies during a lesson would be to have all students:

relate lesson to own experiences
give an example, analogy, or metaphor
draw inferences
explain in own words
give a summary

Students won't do this spontaneously by themselves. The teacher must ask the question and allow time for the processing to occur.

GROUP RESPONDING TECHNIQUES

whisper
fingers
arm is giant pencil: write in air
"mouth" it (non-verbal)
close eyes—signal
nod
thumbs up/down/sideways
write on lid/scratch paper
write on arm (magic finger)
point in direction
close your eyes if the answer is . . .
whisper to the person next to you
discuss with your neighbors
form punctuation with your hand (. . ! , ?)

Below are typical reading group questions. The questions can be restructured using techniques for active participation described above:

1. Who can read this word?
2. Who was your favorite character in the story?
3. Who can find an example of courage in the story?
4. Who can give me an example of their own?

Notice the difference:

1. When I point to the word, all of you whisper it.
2. Tell the person next to you who your favorite character was in the story.
3. Everyone find one example of courage in the story. Point to it with your marker.
4. All of you think of your own example of courage. Look at me when you have it.

Learning - 9

SUMMARY

Given the choice, many students would choose to follow the law of least effort. That is, they will put no more effort into the lesson than is required of them. When teachers offer this opportunity to tune out a lesson — by calling on only the eager or high achievers — the potential for management problems increases. Questioning students consistently — not eventually — during the lesson increases their active participation in the learning and decreases their opportunity to be off task. High expectations for achievement, a characteristic of effective schools, is reflected in our questioning of students.

RESOURCES FOR TEACHING ETC

FOCUS THE LEARNER

Input:

Teaching Makes A Difference - Chapter 9 & 10
- Tape 2 - Active Participation

Mastery Teaching - Tape 4, Getting them Set to Learn
Tape 14, Using Time to Achieve More Learning
Chapters 4,14

Model:

Cultivating Good Teaching - Tape #4, Sets, Active Participation, Closure
Tape 1, Animal Behavior
Tape 2, Ellipse, Static Electricity
Tape 3, Ordered Pairs

Teaching Makes A Difference - Tape 3 - Feeling Tone

Peering in on Peers - Tape on Elementary Music (active partic.)
Tape on High School English (active partic.)
Tape on Elementary Language Arts (closures)
Tape on Junior High Science (set, active par.)

Colchester Tapes - Waldron, Jacob, Mayville

PRINCIPLE OF LEARNING: MOTIVATION

DEFINITION: Motivation is the desire to get the learning and perform the learning tasks.

Motivation is in the learner. The teacher can't "motivate" a learner, but can manipulate variables in the environment to make it more likely the learner will be motivated.

THERE ARE 6 VARIABLES THAT INFLUENCE MOTIVATION:

1. **Concern** - how much the learner cares about accomplishing the learning or learning task

   - continuum from no concern to high concern (anxiety)
   - no concern results in lack of focus, no completion of task
   - too much concern interferes with learning--student is so anxious than can't focus

   There are 4 basic ways to vary the level of concern:

   - Visibility - make it more or less likely that the student will be visible to others (demonstrating, answering, reading, etc.)
   - Time with the Task - shorten or lengthen the time the student has to complete the task
   - Accountability/Consequences - let the student know what happens if she/he does or does not complete the task and vary those consequences
   - Degree of Help Offered - offer more or less help

   Caution: students vary in the level of concern they bring to school. Teacher has to individualize--increasing the expectations for one student while trying to reduce the pressure on another

2. **Feeling Tone/Atmosphere** - how the learner **feels** about aspects of the learning environment (teacher, other students, subject, activity, room)

   - continuum from very negative to very positive feeling tone
   - motivation is likely to be highest with a slightly positive feeling tone; motivation is also high with a slightly negative feeling tone
   - teacher can manipulate the environment to increase the positive feeling tone of students--positive, friendly, allowing some choice of activity or seating
   - teacher can manipulate the environment to increase the negative feeling tone of students--clear negative consequences stated and delivered; moving seats; loss of privileges

   Caution: If feeling tone is **too** positive students may focus on the environment and miss the learning. If feeling tone is too negative, student may perform in the short run, but also develop very negative associations which will result in avoiding learning in the future.

3. **Success** - accomplishment of a task of an appropriate level of difficulty for the learner

The research says that 75% of students who are generally successful will undertake a new task of uncertain difficulty. Almost no students who are generally unsuccessful will try a new task of uncertain difficulty.

Attribution Theory deals how the learner sees the cause of success:

* ability	* task difficulty
* effort	* luck

When learner sees success as a result of ability and effort, the result is positive self-esteem, sense of control, and motivation.

When learner sees success as result of task difficulty and luck, the result is negative self-esteem, sense of helplessness, and low motivation.

To encourage achievement motivation, stress internal attributes which student can control:

* response to success should emphasize ability and effort
* response to failure should emphasize lack of effort

Caution: Lowered self esteem and sense of control may result from:

* praise over success on an easy task
* pity over lack of success
* assistance given when not needed
* easier task given when not needed

4. **Knowledge of Results** - immediate, specific feedback on how the learner is performing on the learning task.

- the answer to, "How am I doing?" is motivating
- immediacy is possible by correcting in class, posting answers for self-checking, teacher circulating and monitoring, peer checking, charts/graphs of completed work
- specific feedback tells the learner exactly what to keep doing or what to correct
- this variable is tied to the principle of reinforcement

Caution: Motivation suffers when students don't get homework and tests back quickly.

5. **Interest** - meaningful, vivid, or novel presentation of material

   - relating to student interests/experiences
   - using games, contests, dramatics
   - using personalized examples

   Caution: over-reliance on gimmicks can detract from the learning. If students become too interested in the game or whatever, they may miss the point.

6. **Rewards** - the learner's expectation that s/he has something to gain by accomplishing the learning task.

   - intrinsic motivation--when just doing the task is its own reward--is the ideal
   - extrinsic motivation--grades, gold stars, praise, privileges, status, notes home, etc.--is necessary for many learners on many tasks
   - try to use rewards along with the other variables of motivation, to help students move toward intrinsic motivation

   Caution: Try to move away from material rewards as soon as another variable of motivation is working. Students may become "hooked" on material rewards and won't perform without them. Rewards for doing a task which is already intrinsically motivating may reduce intrinsic motivation.

* * *

Motivation is considered a serious problem by many teachers. The above variables will help to analyze a specific motivation problem. In any one class, different variables will be working with different students. There will be no ANSWER to the motivation problem--only strategies which may be effective with some students some of the time.

RESOURCES FOR TEACHING ETC

PRINCIPLE OF LEARNING: MOTIVATION

Input:

Teaching Makes a Difference, Cummings - Chapter 8
Tape 3 - Motivation &
Emthusiasm (feeling
tone)

Mastery Teaching - Tapes 2 & 3, Increasing Motivation
Chapters 2,3

Motivation, Hunter - whole book

Model:

Cultivating Good Teaching - Tape 2, Static Electricity

Peering in on Peers - Tape on Elementary Language Arts
- Tape on Elementary Music
- Tape on High School English

Colchester - Waldron, Jacob, Mayville

PRINCIPLE OF LEARNING: RETENTION

THREE STAGES OF RETENTION

1. Acquisition of knowledge
2. Storage of knowledge
3. Retrieval of knowledge

Teachers can affect retention by planning around 6 variables which affect acquisition, storage, and retrieval of knowledge.

6 VARIABLES WHICH INFLUENCE RETENTION:

1. **Degree of Original Learning** - MASTERY--NOT EXPOSURE

Material which is thoroughly mastered is more likely to be retained. To assure high degree of original learning:

- clear, accurate explanations
- clear identification of critical elements
- presentation of small amounts of material at one time
- high level of reinforcement

2. **Meaning** - MOST IMPORTANT VARIABLE IN RETENTION

Meaning is not inherent in the material. It results from interaction between material and student (past experiences, interests, etc.)

To make material more meaningful:

- increase understanding through associations with known material--analogies, examples
- make it relevant to student needs, interests, learning style
- build in meaning
    - * organization into meaningful patterns--outline, headings, group similar items, summarize
    - * stress logical relationships--cause/effect; part/whole
    - * use mnemonics and other devices for memorizing material
    - * use visualization, visual images

3. **Transfer** (see Transfer notes) -

GENERALIZATIONS TRANSFER BETTER THAN FACTS

4. **Sequence** - ORDER AND AMOUNT

- remember first and last items best
- can only hold 5-7 items in short term memory
- vary the sequence of materials so "middle items" show up first or last when reviewed or retaught
- review at the end of a segment of instruction
- keep lists fairly short because the items learned later in list start interfering with items learned earlier

5. **Feeling Tone** (see Motivation notes) - learnings associated with intense feeling, either positive or negative, are retained better than learnings associated with neutral feeling

   - Positive feeling tone promotes best retention
   - Negative feeling tone promotes next best retention, with the risk of negative transfer to later learning

6. **Practice** - Practice doesn't make perfect; perfect practice makes perfect. Not necessary when other variables insure retention-- remember highly meaningful or highly charged things without practice.

   a. **Amount** - after gaining an overview of the learning, students should practice the learning in smaller, meaningful parts. i.e. Read the whole poem, practice it in stanzas. Practice enough times or examples to retain (not kill) the learning. i.e. Ten problems are probably better than 50
   b. **Massed Practice** - lots of short, intense practices, close together, increase retention of **new** learning
   c. **Intermittent Practice** - short, periodic practices over time increase retention of material **already mastered**
   d. **Relevant Practice** - simulating "real" use of the learning

RESOURCES FOR TEACHING ETC

PRINCIPLE OF LEARNING: RETENTION

Input:

Teaching Makes a Difference - Chapter 7
- Tape 4 - Retention

Mastery Teaching - Tape 8, Making Material Meaningful
Tape 10, Practice Doesn't Make Perfect
Tape 15, Teaching So They Remember
Chapters 8, 10, 15

Teach More...Faster - Hunter, whole book

Model:

Cultivating Good Teaching - Tape 1, Animal Behavior
Tape 2, Static Electricity
Tape 3, Ordered Pairs, Task Analysis.

Peering in on Peers - Tape on Elementary Music

Colchester - Waldron, Jacob, Palmer, Mayville

PRINCIPLE OF LEARNING: REINFORCEMENT

DEFINITION: Reinforcement is a procedure used to strengthen the thinking behavior we want learners to do.

Reinforcement of thinking behavior is used to:
- strengthen correct thinking
- increase the chance of continuing correct thinking
- stop incorrect thinking and start correct thinking

A major time to reinforce is when we respond to learners' efforts.

POSITIVE REINFORCEMENT - when the thinking is correct

1. Give a reinforcer (verbal or non-verbal)
   - learner must "want" it
   - use praise carefully, selectively
2. To make reinforcer more effective
   - Give specific feedback - highlight exactly what thinking is correct
   - Give feedback immediately - as soon as possible, especially with new learning
   - Vary the schedule
     - reinforce every response when the learning is new
     - reinforce every so often when the learning has been acquired

NEGATIVE REINFORCEMENT - when the thinking is incorrect

STOP INCORRECT THINKING - START CORRECT THINKING - REINFORCE CORRECT THINKING

1. Stop the incorrect thinking without turning off the learner - dignify the response

   - Put correct question with their incorrect answer
   - Stress the part of the answer that was correct
   - Acknowledge the effort
   - Ask the student to listen to another student's answer
   - Call on several students before giving any response to the answer
   - Offer encouragement when learner "doesn't know"
   - Ask another student what was correct about the first answer
   - Encourage self-checking so student knows s/he is incorrect
   - Try group responses so one learner is not singled out as incorrect

2. Start the correct thinking
   - Give a hint, probe until student corrects self
   - Go back to simpler question and work up
   - Ask another student to answer or explain, then go back to the first student and ask again
   - Have another student add on to an incomplete answer
   - Reteach, give another example, and then question the student for understanding again
   - Ask first student to listen, have other student explain, then have first student repeat
   - Have another student demonstrate correct procedure, then have first student carry out procedure

3. Reinforce correct thinking - same as positive reinforcement

RESOURCES FOR TEACHING ETC

PRINCIPLE OF LEARNING: REINFORCEMENT

Input:

Teaching Makes a Difference - Chapter 11

Mastery Teaching - Tape 13, Dignifying Their Errors
Chapter 13

Reinforcement, Hunter - whole book

Model:

Cultivating Good Teaching - Tape 3, Ordered Pairs

Peering in on Peers - Tape on Elementary Language Arts

Colchester - Waldron, Jacob, Palmer

PRINCIPLE OF LEARNING: TRANSFER

DEFINITIONS: Transfer occurs when previous learning affects new learning or solving new problem.

Positive Transfer is when previous learning helps new learning or is applied appropriately in future situation.

Negative Transfer is when previous learning hinders new learning or is applied inappropriately in future situation.

RELEVANCE: Transfer increases efficiency and effectiveness.
Teacher can control some factors affecting transfer-- transfer isn't automatic, doesn't have to be accidental.
Transfer is basis for creativity and problem-solving. Being able to use learning in future situations or new ways is a primary goal of education.

THERE ARE 5 FACTORS THAT INFLUENCE TRANSFER:

1. **Critical Elements** - identifying and labeling the critical, unvarying elements in a learning helps learners apply it in a new situation

   a. Critical elements include properties, rules, generalizations, steps. They reduce detail and complexity.
   b. Help students identify and verbalize critical elements by asking them to justify answers in terms of critical elements, ie, how do you know it's a contraction? what rule did you use in that problem?
   c. Consider these steps in teaching a concept or generalization:

      - identify critical elements
      - present critical elements one at a time, simplest first, with many examples
      - give students practice recognizing critical elements, such as picking examples from non-examples
      - have students give their own examples and justify in terms of critical elements
      - teach exceptions or limitations LATER, after concept is mastered

2. **Similarity** - when 2 learnings are perceived as similar, transfer is more likely to occur

   a. Similarity in critical elements
   b. Similarity in situation in which something is learned or applied, ie, "church" behavior
   c. Similarity in what student expects to do, ie, take notes; act up when a substitute is present

To encourage positive transfer:

- Verbalize similarities
- Practice at most functional level--apply learning in real or simulated situation

To discourage negative transfer:

- Change key factor in situation and stress the difference, ie, change seating plan to encourage group discussion
- Show learners critical difference between similar learnings; then separate the learnings and teach one at a time
- Overlearn one thing before introducing a similar thing

3. **Association** - when 2 learnings are associated in the mind of the learner, transfer is likely to occur

   a. Feelings are often associated with learnings and transfer accordingly, ie. math phobia; love of P.E.
   b. Associations can be created, ie, mnemonics

To encourage positive transfer:

- Verbalize the feeling to make use of it, ie, Remember how much you liked studying Indians?
- Make up analogies with learners' experiences

To discourage negative transfer:

- Give new name to cut down association, ie. politician calls "taxes" by name "revenue enhancement"
- Verbalize the negative feeling and stress that current situation is different, ie,"I know you had trouble making change yesterday. Today we will use real coins and it will be much easier."

4. **Degree of Original Learning** - the better something is learned the first time, the more likely it is to transfer appropriately

   a. All Instructional Skills contribute to greater degree of original learning
   b. Concept of Mastery Learning is that learners must master essentials before moving ahead; time spent in early learning pays off in time saved in later learning
   c. Overlearning is useful in learning basic, often-used skills
   d. "Exposure" to new learning, without teaching for mastery, may cause negative transfer, especially for slower learners

5. **Simulation** - the more closely acquisition and practice of the learning resembles its actual use, the more likely it is to transfer to future situations.

   a. Field trips, films, demonstrations, models, and examples are of giving explanation "in context" or close to its actual use

   b. Practice should be at the application level (or higher) whenever possible, i.e. practice spelling words in the context of writing a story; practice making change in a classroom store or real store

PLANNING FOR TRANSFER

The teacher consciously considers factors influencing transfer decides how to encourage positive transfer and discourage negative transfer throughout the lesson. The following activities could improve transfer:

1. Selecting the Objective
    - task analyze for critical elements
    - consider how objective relates to long-range goal

2. Set
    - review to check degree of original learning--are they ready?
    - stress relation to past and future learning; explain purposes
    - plan strategy to reduce negative associations if they are expected
    - include critical elements in statement of the objective

3. Explanation
    - teach critical elements
    - present examples, models, analogies, applications

4. Questioning for Understanding
    - insist that students verbalize critical elements in their explanations
    - listen to "wrong answers" and probe student reasoning--may give a clue to a negative transfer that you can clear up
    - ask application and higher level questions

5. Activity
    - plan functional practice, a simulation, close to the "real thing"
    - break practice into parts, to practice each critical element

6. Respond to Learner
    - verbalize the critical elements in some responses--this is the language of the learning

7. Closure
    - ask what is important to remember when doing independent practice
    - ask how the learning can be used outside of school
    - ask one more re-statement of critical elements

RESOURCES FOR TEACHING ETC

PRINCIPLE OF LEARNING: TRANSFER

Input:

Teaching Makes a Difference - Chapter 6

Mastery Teaching - Tape 16, Teaching for Transfer
Chapter 16

Peering in on Peers - Tape on High School English, conference stresses teaching concepts, critical elements

Teaching for Transfer, Hunter -whole book

Model:

Cultivating Good Teaching - Tape 2, Booting Up, Static Electricity
Tape 3, Decimal Points

Peering in on Peers - Tape on Junior High Science

Colchester - Jacob, Palmer

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STEPS IN COACHING

1. **Agree on expectations**
   - -if necessary, review essential elements of skill to be practiced in lesson
   - -date, time, place, subject/class, length of observation
   - -time and place of conference (same day/24 hours)

2. **Observe and record lesson data**
   - -script the lesson, concentrating on parts where the teacher is using the specific skill being practiced
   - -record direct quotes, examples, brief narrative of what teacher did/said
   - -avoid judgments such as, "good," "clear," "confusing"

3. **Analyze lesson before conference**
   - -look for presence of each essential element
   - -identify positive example of teacher practicing each element and why it is positive
   - -identify missing elements (if any)

4. **Conduct conference**
   - -Introduction
     - * establish positive feeling tone
     - * outline what will happen
   - -Teacher Analysis (ask teacher to analyse the lesson, using these questions if needed)
     - * When did you use the skill? (whatever is being practiced)
     - * Why did you do it? (rationale for the skill)
     - * How did it work? (evidence it was appropriate)
   - -Reinforcement
     - * Give further examples of effective use of the skill in the lesson
     - * Review rationale if needed
     - * Give evidence of its effectiveness with the students
     - * Discuss other ways to do the same skill
   - -Summary (ask teacher to summarize conference)
     - * What will you remember from this conference that you can apply in your classroom?

5. **Written conference summary**
   - - remind teacher to write conference summary

CONFERENCE SUMMARY

After each conference with your coach, write a brief (one page) summary.

The summary should answer these questions:

1. What was the lesson objective?
2. What are some ways you used the skill in your lesson?
3. What were your reasons for using this skill?
4. How did the use of the skill work out? was it appropriate?
5. How else might you do this skill in another lesson?
6. What implications does this skill have for your classroom teaching?

OBSERVATION/CONFERENCE GUIDE #1 - SELECT THE CORRECT OBJECTIVE

Before this observation, look at the task analysis.

During this observation, look for:

- Examples of Bloom level of questions and activities
- Evidence that the objective is at the correct level

Conference Guide:

Introduction (feeling tone, what to expect)

Teacher Analysis (to help the teacher analyze the lesson)

What was your objective?
Comment on the appropriateness of this objective to the students with examples from the lesson
What different Bloom levels did you ask students to use? examples? appropriateness?
What changes would you make in the Task Analysis?

Reinforcement (feedback from the coach)

Additional examples of Bloom levels in this lesson
Additional evidence of appropriateness/inappropriateness of the objective
Additional rationale for Task Analysis and Bloom
Other ways to encourage different levels of thinking?
Other ways to find out where the students are in the task analysis?

Summary

What about selecting the correct objective will you carry away from this conference and use in your teaching?

OBSERVATION/CONFERENCE GUIDE #2 - TEACH TO THE OBJECTIVE

During this observation, look for:

- Explanation
- Questioning for Understanding
- Activity
- Response and Reinforcement

Introduction (feeling tone, what to expect)

Teacher Analysis (to help the teacher analyze the lesson)

What was your objective?
What did you do to move students toward the objective?
How did you reinforce correct and incorrect thinking?
Why did you do those things?
How appropriate were the various things you did in teaching to the? objective?
What changes would you make in teaching to this objective?

Reinforcement (feedback from the coach)

Additional examples of effective explanation, checking, activity, or reinforcement
Additional evidence of appropriateness/inappropriateness of the elements of teaching to the objective
Additional rationale for elements of teaching to the objective and reinforcement
Other ways to give explanation, check understanding, practice, and reinforce

Summary

What about teaching to the objective and reinforcement will you carry away from this conference and use in your teaching?

OBSERVATION/CONFERENCE GUIDE #3 - FOCUS THE LEARNER & MOTIVATION

During this observation, look for:
- Set
- Active participation
- Closure
- Variables of motivation

Introduction (feeling tone, what to expect)

Teacher Analysis (to help the teacher analyze the lesson)

What was your objective?
What did you do to keep learners focused on the learning?
What did you do to motivate students?
Why did you do those things?
How appropriate were the various things you did in focusing and motivating the students?
What changes would you make in focusing and motivating?

Reinforcement (feedback from the coach)

Additional examples of set, active participation, closure, or variables of motivation
Additional evidence of appropriateness/inappropriateness of the elements of focus and variables of motivation
Additional rationale for elements of focus and variables of motivation
Other ways to do set, get active participation, do closure, and motivate

Summary

What about focusing and motivating the learner will you carry away from this conference and use in your teaching?

OBSERVATION/CONFERENCE GUIDE #4 - RETENTION & TRANSFER

During this observation, look for:
- Variables of retention
- Variables of transfer

Introduction (feeling tone, what to expect)

Teacher Analysis (to help the teacher analyze the lesson)

What was your objective?
What did you do to increase retention of the learning?
What did you do to encourage transfer past to present? present to future?
Why did you do those things?
How appropriate were the various things you did to encourage retention and transfer?
What changes would you make to encourage retention and transfer?

Reinforcement (feedback from the coach)

Additional examples of encouraging retention and transfer
Additional evidence of appropriateness/inappropriateness of the means of encouraging retention and transfer
Additional rationale for principles of retention and transfer
Other ways to encourage retention and transfer

Summary

What about retention and transfer will you carry away from this conference and use in your teaching?

OBSERVATION/CONFERENCE GUIDE #5 - MONITOR AND ADJUST

During this observation, look for:
- Ways the teacher monitored learning
- Ways the teacher adjusted instruction

Introduction (feeling tone, what to expect)

Teacher Analysis (to help the teacher analyze the lesson)

What was your objective?
When and how did you monitor learning? Why?
What adjustments did you make? Why?
How appropriate was your monitoring? your adjustments?
What changes would you make in monitoring and adjusting?

Reinforcement (feedback from the coach)

Additional examples of monitoring and adjusting
Additional evidence of appropriateness/inappropriateness of the monitoring and adjusting
Additional rationale for monitoring and adjusting
Other ways to monitor and adjust

Summary

What about monitoring and adjusting will you carry away from this conference and use in your teaching?

PEERING IN ON PEERS

Videotape Series on Coaching

These tapes were designed to give supervisors practice in observing and labeling teaching behavior, planning, and conducting conferences.

They could also be used in ETC for workshop or individual study.

Elementary Language Arts - Compound Words

* Summary: Grade 1. Objective: to know definition of compound word and know that you make a compound word by "squishing" two small words together. The teacher models this by putting together two pictures to make one word; children practice. Then teacher models putting together two words; children practice. There are closures after each activity. The independent practice is to write a story using a list of compound words.

* Illustrating Instructional Skills:
- Motivation variables
- Guided Practice
- Closure - 3 examples
- Lesson Line - Model-Activity-Response-Closure-Model-Activity-Response- Closure- Independent Practice
- Critique: What's wrong with this lesson? Task Analysis, Selection of appropriate Objective, Active Participation by All, Relevance of the Activity

* Illustrating Coaching:
- Reviews steps of Clinical Supervision
- Practice observing, scripting, labeling
- Practice on analysis and selecting conference objective--with an advanced group
- Critique: Illustrates how coach needs to analyze lesson carefully. The coach ends up reinforcing teacher inappropriately.
- Shows example of the coach being coached on his conference

Music Class - Musical Notation

* Summary: Intermediate grade. Objective is to be able to sing, read, and write sol, mi, do. Class moves through 9 different activities--dancing, singing, reading, writing, pointing, to practice these notes in different ways and with increasing difficulty. Whole lesson is shown.

* Illustrating Instructional Skills:
- Active Participation
- Motivation
- Retention
- Task Analysis
- Teaching to the Objective -- mostly modeling, guided practice, response
- How Time on Task can be increased by effective teaching
- Critique: Never really tells them the objective

* Illustrating Coaching:
- Carol Cummings models a growth conference--she really teaches
- How to do parts of a conference

Junior High Science - Exercise and Heart Rate

- Summary: Junior High. Objective is to identify the effect of exercise on pulse and identify functions of the circulatory system. After a set, they learn to find and take pulse, check, and practice. Then students take resting, normal, and working pulse and record results. The tape skips over the long periods when students are doing this. At the end the students write: What effect does exercise have on the pulse and What does the circulatory system do for the body. They are to answer based on their classroom experience and the data they collected. Class ends while they are still writing.

- Illustrating Instructional Skills:
  - Discovery Lesson - how teaching to the objective might look in when students generate the data that becomes the input.
  - Focus--set, active participation, and closure are there
  - Transfer
  - Monitor and Adjust
  - Retention--could show the conference to expand on why certain things promote retention
  - Critique: What are the pros and cons of discovery teaching? How could this teacher have improved the closure part to be sure everyone got the objective?.

- Illustrating Coaching:
  - A reinforcement conference stressing the rationale behind retention--the coach expands on why this teacher's techniques work
  - It's a wordy conference, not too skilled. How could the coach improve?

High School English - Figurative vs Literal Language

- Summary: Ninth Grade. Objective is to discriminate literal and figurative language in poetry. Review of difference between figurative and literal language. Examples for guided practice (thumb responses). Then worksheets where they underline examples of figurative. Then they share answers in small groups. Then in class, discussing the problematic ones. Independent practice is to listen to poem, then write out all the figurative lines. Tape stops while students are doing this--narrator describes how lesson ends.

- Illustrating Instructional Skills:
  - Monitor and Adjust
  - Active Participation - many strategies
  - Set
  - Level of Concern
  - Critical attributes of good examples (conference)
  - Transfer - critical attributes, teaching concepts (conference)
  - Motivation

- Illustrating Coaching:
  - Carol Cummings does a growth conference, showing how to teach the skill, using examples from the teacher's lesson
  - Critical elements of a conference

CULTIVATING GOOD TEACHING

Tape #1

School Board Program - 20 minutes (can skip last part)

* **Summary:** Gives a brief explanation and classroom illustration of 4 Essential Elements of Instruction:

- Select the Correct Objective
- Teach to the Objective
- Focus through Set, Active Participation, & Closure
- Monitor and Adjust

Tells about the New Jersey Academy.

* **Use:** Overview for School Board or anyone who wants to know more about ETC.

Overview for individual or small group learning instructional skills.

Quantifying Observations of Animal Behavior - 25 minutes (High School Biology Class)

* **Summary:** WONDERFUL example of a teacher who skillfully uses many elements of effective instruction so it seems completely natural. After a review activity and set, teacher draws from students the categories of animal behavior, makes each meaningful. Guided practice. Closure.

* **Uses:** Examples of excellent secondary lesson.
- Very clear Task Analysis
- Retention by meaning, multi-modalities, feeling tone, mnemonics, organization
- Active Participation throughout
- Response - wrong answer is tied to right question
- Teach to the objective - explanation is drawn from students

CULTIVATING GOOD TEACHING

Tape #2

The Area of An Ellipse - 18 minutes
(Secondary Geometry)

* **Summary:** Students use previous knowledge of finding the area of a circle to discover the formula for the area of an ellipse. For practice, solve problems for area of ellipse.

* **Use:** Active Participation - many ways to achieve it
Evidence of Task Analysis
Set
Modeling

Booting Up a C.A.D. System - 18 minutes
(Secondary Drafting)

* **Summary:** Teacher explains and models steps in booting up a computer-aided drawing program, and steps in saving their work. Checks understanding of booting, then saving. Teaches an exception. Then final check before students are to practice booting--tape ends before the actual practice.

* **Use:** Evidence of Task Analysis
Transfer - past to present and present to future
Modeling
Checking for Understanding

Seven Rules of Static Electricity - 17 minutes
(Secondary, lower level science)

* **Summary:** Teacher explains and demonstrates 7 points about static electricity, stopping to check after 3, 5, and 7 have been taught. Makes sure the original learning is high.

* **Use:** Teach to the Objective - breaking into parts, keeping on line
Focus - set, participation, closure
Retention - transfer, meaning, feeling tone, sequence, practice
Motivation - lowers level of concern, feeling tone, success, interest, knowledge of results

CULTIVATING GOOD TEACHING

Tape #3

Plotting Ordered Pairs on a Grid - 22 minutes
(Third Grade)

* **Summary:** Teacher explains and demonstrates locating points on a grid, the sequence in an ordered pair, distinguishing X and Y axis. Checks and practice show that this is easy for the students. Ends with an application activity using a classroom map. Students are to locate their desks, using ordered pairs.

* **Use:** This tape is not a very good model because the objective is not clear and too much time is spent on things that seem easy for the students. Then it jumps to practice at the application level. It does illustrate:
* Monitor and Adjust
* Response - specific, what made an answer good
* Retention - many variables
* Active Participation - groups, signaling

USE FOR COACHING PRACTICE. Good example of a lesson where there are many strengths to reinforce, but a define need for growth

How to Do a Task Analysis - 20 minutes
(Intermediate Grade)

* **Summary:** Teacher presents 5 steps in doing a task analysis to help students improve on giving directions. Monitoring throughout the lesson shows a couple of areas where re-teaching is necessary and done. Tape ends with the assignment for pairs to develop their own task analysis.

* **Use:** Monitor and Adjust - part way through explanation, at end of explanation, before giving independent practice
Focus on the Learning - think time, calls on many
Task Analysis
Retention - massed practice

Use after teaching Task Analysis in ETC-- reviews the content and also shows a lesson following a task analysis

Decimal Points and Multiples of Ten - 20 minutes
(Intermediate Grade)

* **Summary:** Teacher reviews multiplication of whole numbers by multiples of ten, illustrates multiplying decimals by multiples of ten, and has students "discover" the generalization for moving the decimal point to the right. Models and checks understanding.

* **Use:** Transfer - similarity, association, teaches a generalization, insures degree of original learning
Monitoring - use of signaling
Modeling
Discovery Lesson

CULTIVATING GOOD TEACHING

Tape #4

Examples of Sets

* Summary: Six sets are shown--three secondary, three elementary. Each illustrates a way of getting students involved in thinking about the learning, and a statement of relevance. Objectives are also stated, orally, with varying levels of clarity.

* Use: To model sets which contain the 3 critical elements.
  To model different ways to do sets.
  To check understanding about sets: ask the purpose of various things the teacher did.

Examples of Active Participation

* Summary: Six examples, two secondary, four elementary of different ways to get covert and overt participation. Includes writing, counting on fingers, having one person answer while others check their answers, memorizing and telling a partner, drawing and checking partner's work, telling answer to small group, flashing a signal, think time.

* Use: To model specific ways to encourage active participation.
  To check understanding: How did the teacher get covert? Overt? Why did the teacher do a particular thing?

Examples of Checking for Understanding

* Summary: Six examples, two secondary, four elementary of different ways to check understanding of whole group and individuals. Includes one group telling its answers and class using thumbs to agree/disagree; choral response; dipsticking; reciting to partner; reciting to whole class and asking class if it agrees; having one student answer, ask others if they agree; making all think of answer before calling on one; signalling with cards.

* Use: To model specific ways to check understanding of many students.
  To check understanding: What did the teacher do to check? Why was a particular technique used?

Examples of Closure

* Summary: Six examples, three secondary, three elementary of different ways to get closure. Includes everyone reviewing at end, then calling on one student who answers and calls on the next; recalling two definitions, telling one to partner; having pairs tell directions to each other while teacher monitors and adjusts; final written examples for all to do; short written activity which is done and shared; oral review by a few students before guided practice.

* Use: To model specific ways to do closure.
  To check understanding: How did the teacher get summary from everyone? Why is that important?

TEACHING MAKES A DIFFERENCE

Videotape Series on Elements of Effective Instruction
For Elementary Schools

TAPE #1

Introduction - 7 minutes

* **Summary:** Provides a rationale for examining instructional skills in more depth, even by highly experienced teachers. Stresses research on time on task and the need to increase the quantity of time on task through effective classroom management and the quality through instructional skills.

* **Use:** Opening session of ETC. Orientation to study of instructional skills by individuals or peer tutor pairs.

Proactive Management - 22 minutes

* **Summary:** Examines the techniques the proactive manager uses to prevent or minimize management problems. Characteristics include:

1. Teaching rules and routines
2. Teaching independence skills
3. Giving clear directions
4. Eliminating "dead time"
5. Getting active participation
6. Varied momentum and pacing
7. Management by Walking Around

* **Use:** After/instead of reading Chapter 12. For new teacher, to prevent management problems. For any teacher, to find additional ways to increase instructional time--by saving management time.

Selecting the Objective - 29 minutes

* **Summary:** Part I - Explains each level of Bloom's Taxonomy and gives examples of objectives at each level. Helps see the critical element of each level.

Part II - Explains why and how to do Task Analysis. Stresses informal and formal diagnosis to see where to start instruction.

* **Use:** Initial input on Selecting the Objective--for workshop group or individual study. Could be followed by Chapters 2-3.

TAPE #2

Teaching to the Objective - 23 minutes

- **Summary:** Gives a rationale for having all parts of the lesson "congruent" (relevant) to the objective--leading to the objective. Models a poor example to make the point. Then focuses on "crap detection" to illustrate practice activities that aren't congruent to the objective. Dumps on word search and scrambled words, explaining why these common practice activities aren't congruent to the objective and why they interfere with the objective.

- **Use:** After input on the 4 elements of Teach to the Objective.
  After reading Chapter 4.
  Good illustration of need for effective teacher to select carefully from commercially prepared materials so that the materials give relevant practice.

Monitoring and Adjusting - 13 minutes

- **Summary:** Examines the steps necessary to evaluate learning as it is taking place. These decisions include who to monitor, when to monitor, and how to monitor. Reviews research on how teachers actually monitor high achievers more and differently than low achievers.

- **Use:** Initial input on Monitor and Adjust--for workshop group or individual study. Could be followed by Chapter 5.

Active Participation - 12 minutes

- **Summary:** Students learn more and learn faster when their minds are actively involved in the learning. Gives 3 factors/steps in getting active participation and examples of each:
  1. Level of Concern (accountability)
  2. Covert Involvement (think time)
  3. Overt Involvement (many ways to get responses)

- **Use:** Initial input on Active Participation in workshop or for individuals. Use after giving an overview of Focus the Learner, to illustrate the active participation part.
  After reading Chapter 9.

TAPE #3

Motivation - 20 minutes

*** Summary:** Examines variables influencing student focus in class:
1. Success
2. Level of Concern
3. Rewards
4. Interest
5. Knowledge of Results
6. Feeling tone

Gives critical elements and examples for 1-5.

*** Use:** Initial input on Motivation for workshop or individual use. After Chapter 8.

Feeling Tone - 22 minutes

*** Summary:** Develops one aspect of feeling tone--teacher enthusiasm--by presenting 8 characteristics of Enthusiasm, with examples of each and then examples of Anticipatory Sets where many variables work together to create enthusiasm.
1. Vocal Delivery
2. Eye Contact
3. Gestures
4. Body Movement
5. Facial Expression
6. Word Selection
7. Acceptance of Feelings/Ideas
8. Energy Level

*** Use:** Initial input or follow up on motivation. After Chapter 8. To illustrate Anticipatory Set--examples of Enthusiasm are embedded in sets, although the term "set" is not used.

TAPE #4

Retention - 29 minutes

*** Summary:** Reviews brain research and 4 variables that help move material from short to long-term memory:
1. Meaning - how to make material meaningful
2. Modeling/Multiple Modalities - uses a model of how the brain works to illustrate this
3. Meaningful Processing - how to transform new learning, brings in Bloom
4. Practice - when, how much, form of practice, feedback

*** Use:** Could be the input on Retention for workshop or individuals. May be better than the 5 variables of Retention. Chapter 7.

Planning a Lesson - 25 minutes

*** Summary:** Describes 6 functions of a lesson. Illustrates with a whole lesson. Similar to the critical elements in Teach to the Objective, plus Set.
1. Review (set, transfer)
2. Present Information (set, explanation)
3. Check Understanding/Guided Practice (combines these)
4. Feedback and Corrective (response & reinforcement)
5. Independent Practice (in classroom)
6. Build in Periodic Review (retention)

*** Use:** Summary of Instructional Skills, or summary after Teach to the Objective. Shows how parts fit together.